



## Workshop Manual

Fox 2004 ► , Fox 2010 ► , Fox 2014 ► ,  
Gol 1995 ► , Gol 1999 ► , Gol 2006 ► ,  
Gol 2009 ► , Gol 2013 ► , Gol 2017 ► ,  
Golf 1999 ► , Golf 2007 ► ,  
Golf 2016 ► , Kombi 1997 ► ,  
Parati 1999 ► , Parati 2006 ► ,  
Polo 2003 ► , Polo 2007 ► ,  
Polo 2012 ► , Polo Sedan 2003 ► ,  
Polo Sedan 2007 ► ,  
Polo Sedan 2012 ► , Santana 1991 ► ,  
Saveiro 2000 ► , Saveiro 2006 ► ,  
Saveiro 2010 ► , Saveiro 2014 ► ,  
Saveiro 2017 ► , SpaceFox 2006 ► ,  
SpaceFox 2011 ► , Voyage 2009 ► ,  
Voyage 2013 ► , Voyage 2017 ► ,  
up! 2014 ►

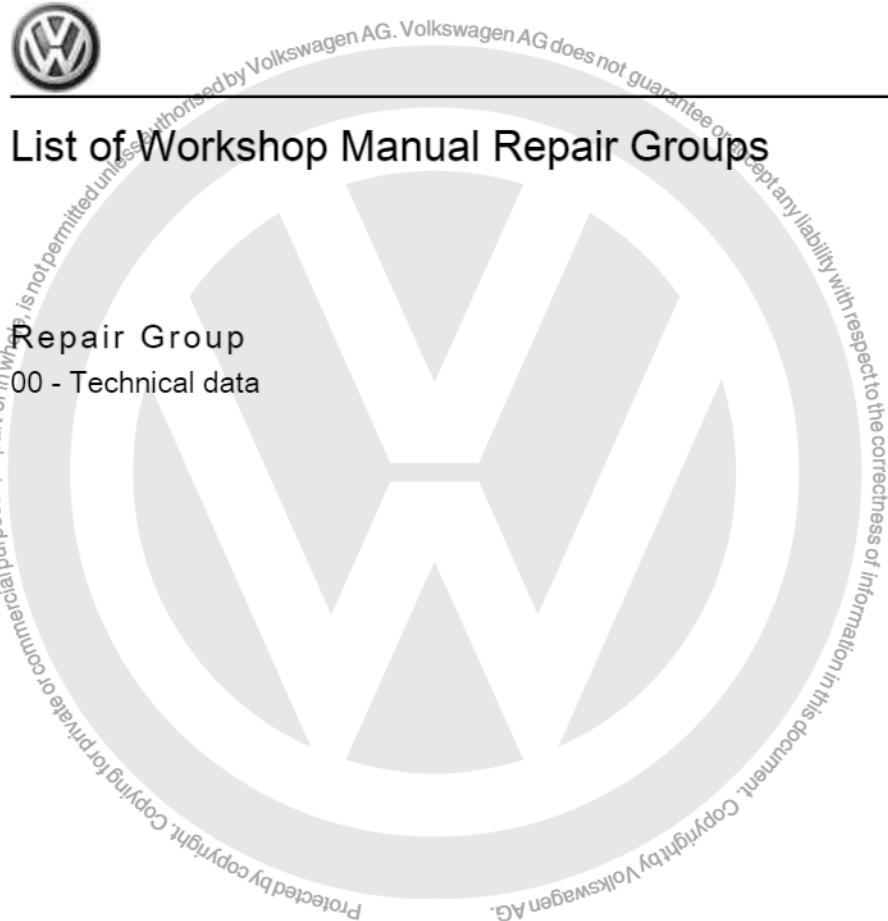
## Chemicals Manual

Edition 02.2016



## List of Workshop Manual Repair Groups

Repair Group  
00 - Technical data



Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

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## 00 – Technical data

### 1 Introduction

(VRL008743; Edition 02.2016)

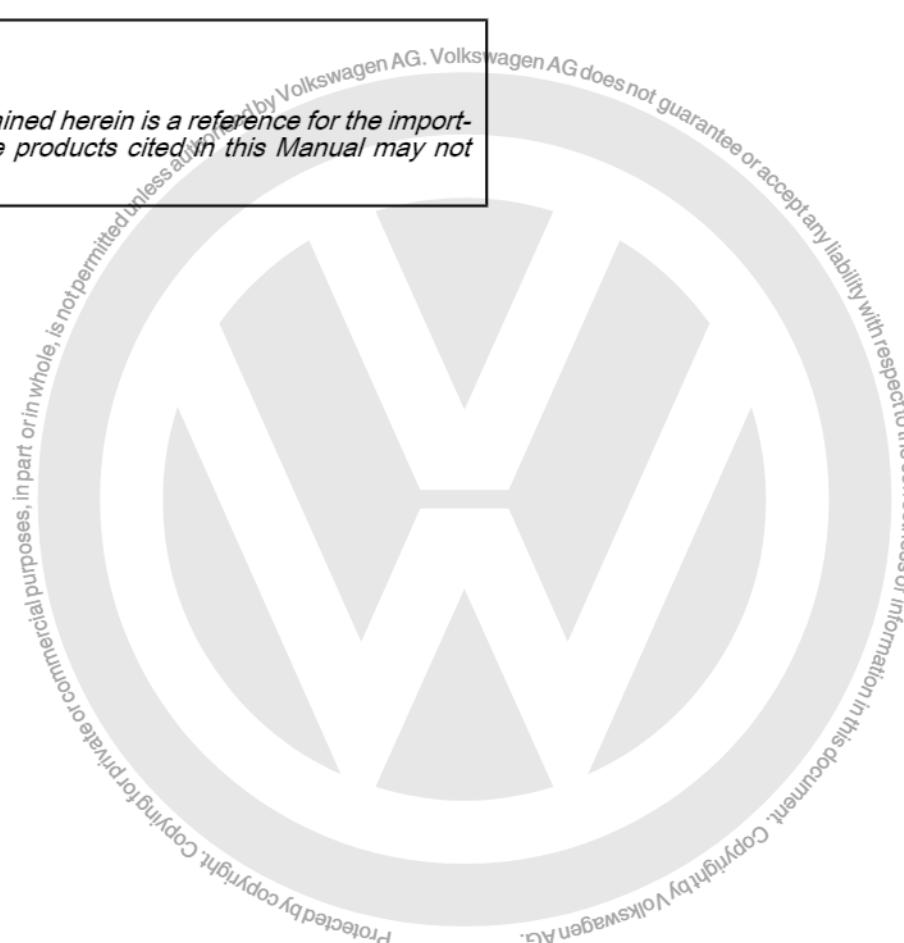
The information in this manual also cover that mentioned in the  
⇒ Electronic Replacement Parts Catalogue "ETKA".

Some products are sold directly by the supplier, and so contacts  
are directed to them.



#### WARNING

*The information contained herein is a reference for the importer, since some of the products cited in this Manual may not exist on the market.*





## 2 List of Suppliers

### 2.1 3M do Brasil

<http://www.3m.com.br>

### 2.2 Alba Adesivos Ind. Com. Ltda

<http://www.albaadesivos.com.br/>

### 2.3 Brascola Ltda

<http://www.brascola.com.br/>

### 2.4 Castrol Brasil Ltda

[www.castrol.com/pt\\_br/brazil.html](http://www.castrol.com/pt_br/brazil.html)

### 2.5 Cia Brasileira de Petróleo Ipiranga

<http://www.ipiranga.com.br>

### 2.6 Chevron Brasil S/A

<https://www.chevron.com.br>

### 2.7 Colauto - Adesivos e Massas Ltda

<http://bra.sika.com>

### 2.8 Cremer S.A. Prod. Têxteis e Cirúrgicos

<http://www.cremer.com.br>

### 2.9 Dow Corning do Brasil Ltda

[http://www.dowcorning.com/pt\\_BR](http://www.dowcorning.com/pt_BR)

### 2.10 Dow Automotive System

<http://www.dow.com/brasil/>

### 2.11 Du Pont S/A

<http://www.dupont.com.br>

### 2.12 Elf Lubrificantes do Brasil

<http://www.elf.com>

### 2.13 Esso Brasileira de Petróleo Ltda

<http://www.exxonmobil.com.br>

### 2.14 Formiquímica Com. e Repres. de Produtos Químicos Ltda

<http://formiquimica.com.br>

### 2.15 Gratec System Indústria de Produtos Químicos Ltda

[gratec@uol.com.br](mailto:gratec@uol.com.br)

### 2.16 Henkel do Brasil Ltda

<http://www.henkel.com.br/index.htm>



2.17 Klüber Lubrification Lubrificantes Especiais Ltda

<http://www.klueber.com/br/pt/homepage/>

2.18 Loctite Brasil Ltda

<http://www.loctite.com>

2.19 Lumobrás Imp. Com. Ind. Ltda

<http://www.lumobras.com.br>

2.20 ExxonMobil do Brasil Ind. Com. Ltda

<http://www.exxonmobil.com.br>

2.21 Motul Synthetic Lubricants

<https://www.motul.com/br/pt-br>

2.22 Nippondenso Compressores Ltda

<http://www.denso.com.br/>

2.23 Pentosin do Brasil Ltda

<http://www.pentosin.net/>

2.24 Petrobras Distr. S/A

<http://www.petrobras.com.br>

2.25 Promax Prod. Máximos S/A Indústria e Comércio

<http://www.promax.com.br>

2.26 Repsol - YPF S.A. Divisão Lubrificantes Brasil

<http://www.ypf.com/brasil/Paginas/Home.aspx>

2.27 Quaker Chemical Industria e Comércio Ltda

<http://br.quakerchem.com/>

2.28 Shell Brasil S/A

<http://www.shell.com/br.html>

2.29 Sika S/A

<http://br.sika.com/>

2.30 Solplás - Ind. de Plásticos Ltda

<http://www.solplas.com.br>

2.31 Solvay Química

<http://www.solvay.com/>

2.32 Three Bond do Brasil Ind. e Com. Ltda

<http://www.threebond.com.br>



## 2.33 Total Lubrificantes Brasil Ltda

<http://www.totalbr.com.br/>

## 2.34 Tutela Lubrificantes S/A

<http://www.tutela.com.br/>

## 2.35 Valvoline Lubrificantes Internacionais Ltda

<http://www.valvoline.com.br/>





### 3 List of authorized products



#### WARNING

Observe the information in Chapter "Work Instructions for Handling Chemicals" [⇒ page 23](#)

#### 3.1 Assembly Adhesive

Trade Name	Packaging	Supplier
D 190 MKD A3	310 ml	VOLKSWAGEN

#### 3.2 Adhesive for polyurethane and polypropylene

MKL.106.113.09

Trade Name	Packaging	Supplier
EC 4474 Brascoplast CE 5575VW	18-L buckets 18-L buckets	3 M BRASCOLA

#### 3.3 Resin adhesive

Trade Name	Packaging	Supplier
DA 001 730 A2	2 Kg	VOLKSWAGEN

#### 3.4 Polyurethane-based sealing adhesive

MKL 106,146 83

Trade Name	Packaging	Supplier
Sikaflex 221 - white	310 ml cartridges	SIKA

#### 3.5 Instant adhesive

MKL 106,037 28

Trade Name	Packaging	Supplier
SB - 416	10 g and 100 g TUBES	LOCTITE
TB-1000 E	100 g TUBES	THREE BOND

#### 3.6 Adhesive for sealing gaskets

Trade Name	Packaging	Supplier
BRASCOVED CA-149 V	85 ML TUBES	BRASCOLA
ADHESIVE FOR DIESEL ENGINE GASKETS	85 ML TUBES	BRASCOLA

#### 3.7 Permanent adhesive

Trade Name	Packaging	Supplier
BRASCOVULT SLP-76	1 L and 3.6 L CANS	BRASCOLA



### 3.8 Adhesive for packings and linings

MKL.106.217.95

Trade Name	Packaging	Supplier
BRASCOFIX 833	900 ML TINS	BRASCOLA
COVULFIX ESPECIAL	900 ML TINS	BRASCOLA

### 3.9 Polyurethane adhesive

Trade Name	Packaging	Supplier
D 180 KD2 A1	50 ml	VOLKSWAGEN

### 3.10 Polyurethane adhesive

Trade Name	Packaging	Supplier
D 180 KD3 A2	120 ml	VOLKSWAGEN

### 3.11 Epoxy adhesive with 2 components

Trade Name	Packaging	Supplier
DA 001 730 A2	37 ML	VOLKSWAGEN

### 3.12 Sealing adhesives for engines

Trade Name	Packaging	Supplier
ISAVED 2 V	900 ML TINS	SOLPLÁS
THREE BOND 1,102 A	900 ML TINS	THREE BOND

### 3.13 High-resistance locking adhesive

Trade Name	Packaging	Supplier
LOCTITE 601	50 AND 250 ML TUBES	LOCTITE
THREE BOND 1329 B	50 AND 250 ML TUBES	THREE BOND

### 3.14 Low viscosity lock adhesive

Trade Name	Packaging	Supplier
LOCTITE 649	50 AND 250 ML TUBES	LOCTITE
THREE BOND 1305 B	50 AND 250 ML TUBES	THREE BOND

### 3.15 Locking adhesive

Trade Name	Packaging	Supplier
D 000 600 A2	18 ml	VOLKSWAGEN

### 3.16 Locking adhesive for mechanical seals

Trade Name	Packaging	Supplier
THREE BOND 1386 E	250 ML TUBES	THREE BOND



### 3.17 Medium torque locking adhesive

Trade Name	Packaging	Supplier
LOCTITE 649	50 ML TUBES	LOCTITE
THREE BOND 1324 Z	50 ML TUBES	THREE BOND

### 3.18 Adhesive for plastic cap gaskets

Trade Name	Packaging	Supplier
BRASCOPE CA 2800 F	5-LITER TINS	BRASCOLA

### 3.19 Metal-glass adhesive

Trade Name	Packaging	Supplier
D 000 703 A1	0.3 g	VOLKSWAGEN

### 3.20 Sealing adhesive

Trade Name	Packaging	Supplier
LOCTITE 573	50 AND 250 ML TUBES	LOCTITE

### 3.21 2-component adhesive

Trade Name	Packaging	Supplier
THREE BOND 3941 (BLUE)	50 ML TUBES	THREE BOND
THREE BOND 3942 (RED)	50 ML TUBES	THREE BOND

### 3.22 Universal adhesive

Trade Name	Packaging	Supplier
D 001 200 M2	420 g	VOLKSWAGEN
D 001 210 M2	420 g	VOLKSWAGEN

### 3.23 Additives for coolants - G11

Trade Name	Packaging	Supplier
G 052 774 A3	1 litre	VOLKSWAGEN

### 3.24 Additives for coolants - G13

Trade Name	Packaging	Supplier
G 013 A8J M1	1.5 litre	VOLKSWAGEN

### 3.25 Additive for the windscreen/rear window washer reservoir

Trade Name	Packaging	Supplier
G 052 164 M1	0.5 litre	VOLKSWAGEN
G 052 164 M2	1 litre	VOLKSWAGEN



### 3.26 Additives for petrol

Trade Name	Packaging	Supplier
APR 020 002 B	375 ml	VOLKSWAGEN

### 3.27 Activating agent for pre-laminated glass

Trade Name	Packaging	Supplier
D 181 802 M1	10 ml	VOLKSWAGEN

### 3.28 Silicone rubber

Trade Name	Packaging	Supplier
FLEXITE BLACK	85 g TUBES	ALBA
BRASCOVED SI-40 - BLACK	85 g TUBES	BRASCOLA
SILASTIC 732 RTV - BLACK	85 g TUBES	DOW CORNING

### 3.29 Filling and acoustic isolation foam

Trade Name	Packaging	Supplier
D 506 KD1 A3	200 ml	VOLKSWAGEN

### 3.30 Polyurethane adhesive tape

Trade Name	Packaging	Supplier
MKR 106 260 95	21 MM X 50 M ROLLS	VOLKSWAGEN

### 3.31 Cotton tape

Trade Name	Packaging	Supplier
TESABAND IM- PERMEÁVEL 4651 (waterproof)	19 MM X 50 M ROLLS	CREMER

### 3.32 Self-adhesive PVC tape

Trade Name	Packaging	Supplier
FITA 470	30 M X 19 MM ROLLS	3 M

### 3.33 Transferable adhesive tape

Trade Name	Packaging	Supplier
Y-0598	33 M X 16 MM ROLLS	3 M

### 3.34 Sealing tape

Trade Name	Packaging	Supplier
BRASCOVED 2015 L	BOX CONTAINING 10 TO 20 KG (with tapes)	BRASCOLA



### 3.35 Double-sided adhesive tape

Trade Name	Packaging	Supplier
V 2808	6.0 MM X 61 M ROLLS	INDACO
Y-427	6.3 MM X 10 M ROLLS	3 M

### 3.36 Double-sided acrylic foam adhesive tape

Trade Name	Packaging	Supplier
Y-4205	5 MM X 10 M ROLLS	3 M

### 3.37 Medium density double-sided adhesive tape

Trade Name	Packaging	Supplier
Y-4210 (SENSOR)	30 X 48 MM UNITS	3 M
325 /953 931 1	30 X 48 MM UNITS	VOLKSWAGEN
Y-4210 (GOL GTI ROOF SPOILER)	10 X 80 MM UNITS	3 M

### 3.38 Hydraulic brake fluid (DOT 4)

Trade Name	Packaging	Supplier
B 000 750 M1	0.25 litre	VOLKSWAGEN

### 3.39 Automatic transmission fluid

Trade Name	Packaging	Supplier
G 052 182 A2	1 litre	VOLKSWAGEN

### 3.40 Refrigerant gas - R134a

Trade Name	Packaging	Supplier
SUVA® 134A		DU PONT
SOLKANE® 134A		SOLVAY QUÍMICA

### 3.41 Multi-purpose grease

Trade Name	Packaging	Supplier
ESSO MULTI H		ESSO
LITHOLINE MP		IPIRANGA
LUBRAX G-MA-2		PETROBRÁS
RETINAX WB		SHELL
MULTIFAK 2		CHEVRON BRASIL

### 3.42 Semi-fluid grease

Trade Name	Packaging	Supplier
G 052 168 A1	10 g	VOLKSWAGEN



### 3.43 Multi-purpose grease

Trade Name	Packaging	Supplier
LITHOLINE EP 2		IPIRANGA
CASTROL GRAXA		CASTROL
EPL 2		
EXXON BEACON		ESSO
EP-2		
LUBRAX - GMA-2		PETROBRÁS
MULTIFAK PREMI-		CHEVRON BRASIL
UM EP2		

### 3.44 Multi-purpose grease

Trade Name	Packaging	Supplier
G 052 735 A2	120 g	VOLKSWAGEN

### 3.45 Special lubrication grease

Trade Name	Packaging	Supplier
G 000 450-02	90 g	VOLKSWAGEN

### 3.46 Polyalphaolefin-based low temperature grease

Trade Name	Packaging	Supplier
ISOFLEX TOPAS L32 (WHITE)		KLÜBER

### 3.47 Lubricating grease

Trade Name	Packaging	Supplier
VARILUB 745 BR	1 KG	KLÜBER

### 3.48 Complex grease

Trade Name	Packaging	Supplier
MOBILPLEX 47		MOBIL

### 3.49 Graphite grease

Trade Name	Packaging	Supplier
ISAGRAFITE		IPIRANGA
KLÜBER ST 25/300		KLÜBER
G-8		
PROFASA HD G-1		WAL

### 3.50 Grease for front wheel cylinder support guide pin

Trade Name	Packaging	Supplier
SYNTHESO GLK 1		KLÜBER



### 3.51 Grease for gearbox side seals

Trade Name	Packaging	Supplier
GRAXA VARILUB AH 70-222 BR		KLÜBER

### 3.52 Lubricating grease

Trade Name	Packaging	Supplier
G 052 186 A2	90 g	VOLKSWAGEN
G 052 186 A3	140 g	VOLKSWAGEN

### 3.53 Grease for electrical contacts

Trade Name	Packaging	Supplier
UNIMOLY AC MET- ALLIC		KLÜBER
MOLYKOTE HSC		LUMOBRÁS

### 3.54 Polyurea grease

Trade Name	Packaging	Supplier
G 052 142 A2	400 g	VOLKSWAGEN

### 3.55 High temperature grease

Trade Name	Packaging	Supplier
G 052 133 A2	90 g	VOLKSWAGEN
G 052 133 A3	120 g	VOLKSWAGEN

### 3.56 Temperature resistant grease

Trade Name	Packaging	Supplier
G 000 650	100 g	VOLKSWAGEN

### 3.57 Lubricating grease

Trade Name	Packaging	Supplier
G 000 100	80 g	VOLKSWAGEN

### 3.58 Silicone based grease

Trade Name	Packaging	Supplier
UNISILKON GLK 112 BR	1 Kg	KLÜBER

### 3.59 Windscreen adhesive set

Trade Name	Packaging	Supplier
DA 004 660 M2	Comp. A - 207 ml and Comp. B - 193 ml	VOLKSWAGEN



### 3.60 Windscreen adhesive set

Trade Name	Packaging	Supplier
DA 004 556 M2	Comp. A - 200 ml and Comp. B - 200ml	VOLKSWAGEN

### 3.61 Glass adhesion kit

Trade Name	Packaging	Supplier
BETASEAL U-400HV	BOX WITH PRI- MER AND TUBE OF ADHESIVE	DOW AUTOMO- TIVE SYSTEMS

### 3.62 Lithium-based lubricant

Trade Name	Packaging	Supplier
G 052 150 A2	180 g	VOLKSWAGEN

### 3.63 Adhesive paste and grey sealant

Trade Name	Packaging	Supplier
D 511,500 A2	290 ML	VOLKSWAGEN

### 3.64 Adhesive material for glass

Trade Name	Packaging	Supplier
DH 009 100	300 ML	VOLKSWAGEN

### 3.65 Sealing compound

Trade Name	Packaging	Supplier
D 174,003 A2	83 ML	VOLKSWAGEN

### 3.66 Adhesive material for glass

Trade Name	Packaging	Supplier
DH 009 100 03	300 ml	VOLKSWAGEN

### 3.67 Silicone paste

Trade Name	Packaging	Supplier
G 000 405 A2	50 g	VOLKSWAGEN

### 3.68 Mouldable paste for caulking

Trade Name	Packaging	Supplier
BRASCOVED 1051	BOX WITH 20 KG (20 1-KG BAGS)	BRASCOLA
191	BOX WITH 20 KG (20 1-KG BAGS)	HENKEL

### 3.69 Lubricating paste for high temperatures

Trade Name	Packaging	Supplier
G 052 186 A3	140 g	VOLKSWAGEN



### 3.70 Lubricating paste for constant velocity joints

Trade Name	Packaging	Supplier
G 052 738 A2	120 g	VOLKSWAGEN

### 3.71 Sealing compound

Trade Name	Packaging	Supplier
D 154,103 A1	100 g	VOLKSWAGEN

### 3.72 Sealing compound

Trade Name	Packaging	Supplier
VEDANTE 245/78	85 ML TUBES	HENKEL
SQV - 337	85 ML TUBES	BRASCOLA

### 3.73 Sealing compound

Trade Name	Packaging	Supplier
AMV 188 200 03	100 g TUBES	VOLKSWAGEN

### 3.74 Paste for bucket protection

Trade Name	Packaging	Supplier
STOP NOISE 6,979A	20 KG PAILS	HENKEL
STOP NOISE 6979B	5 KG TINS	HENKEL

### 3.75 Sealing compound for engines

Trade Name	Packaging	Supplier
D 454,300 A2	125 g TUBES	VOLKSWAGEN

### 3.76 Sealing compound

Trade Name	Packaging	Supplier
7X0 898,539	100 g TUBES	VOLKSWAGEN

### 3.77 Sealing compound for engine

Trade Name	Packaging	Supplier
AMV 188 001 02 - (EA 111 - 8V engines)	100 g TUBES	VOLKSWAGEN
D 154 103 A1 - (EA 111 - 8V engines)	100 g TUBES	VOLKSWAGEN
D 188,003 A1 - (EA 111 - 16V engines)	100 g TUBES	VOLKSWAGEN

### 3.78 Nyogel

Trade Name	Packaging	Supplier
G 052 817 A1	10-g SACHET	VOLKSWAGEN



3.79 Engine lubricant oil: Petrol, Ethanol -  
VW 501 01

Trade Name	Packaging		Supplier
CASTROL MAGNATEC EXCLUSIVE (SAE 10 W 40)	1 litre 200 litres	G 052 167 A1 G 052 167 M1	VOLKSWA- GEN
MOTUL 4100 TURBOLIGHT (SAE 10 W 40)			MOTUL
PENTOLUB PERFORM- ANCE (SAE 10 W 40)			PENTOSIN

3.80 Engine lubricant oil: Petrol, Ethanol, To-  
taflex and NGV - VW 502 00

Trade Name	Packaging		Supplier
CASTROL MAGNATEC PROFESSIONAL MF (SAE 5 W 40)	1 litre 208 litres	G 052 167 A4 G 052 167 M3	VOLKSWA- GEN
CASTROL EDGE PRO- FESSIONAL A3 (SAE 0 W 30)	1 litre	G 052 167 A7	VOLKSWA- GEN
ELAION F50 (SAE 5 W 40)			YPF
ELAION SUV (SAE 5 W 40)			YPF
HAVOLINE ULTRA S (SAE 5 W 40)			CHEVRON BRASIL
IPIRANGA F1 MASTER SYNTHETIC SN 502 (SAE 5 W 40)			IPIRANGA
MOBIL SU- PER 3000 X1 (SAE 5 W 40)			MOBIL
MOTUL 6100 SYNERGIE + (SAE 5 W 40)			MOTUL
MOTUL 6100 SYNERGIE + (SAE 10 W 40)			MOTUL
MOTUL 8100 X Cess (SAE 5 W 40)			MOTUL
MOTUL 8100 X Clean (SAE 5 W 40)			MOTUL
PENTO- SYNTH (SAE 5 W 40)			PENTOSIN



Trade Name	Packaging	Supplier
SHELL HELIX HX7 (SAE 5 W 40)		SHELL
SHELL HELIX ULTRA (SAE 5 W 40)		SHELL

### 3.81 Lubricating oil for diesel engines - VW 505 00

Trade Name	Packaging	Supplier
CASTROL MAGNATEC EXCLUSIVE (SAE 10 W 40)	1 litre 200 litres	G 052 167 A1 G 052 167 M1
CASTROL MAGNATEC PROFESSIONAL (SAE 5 W 40)	1 litre 200 litres	G 052 167 A4 G 052 167 M3
ELAION F50 (SAE 5 W 40)		YPF
ELAION SUV (SAE 5 W 40)		YPF
HAVOLINE ULTRA S (SAE 5 W 40)		CHEVRON BRASIL
IPIRANGA F1 MASTER SYNTHETIC SN 502 (SAE 5 W 40)		IPIRANGA
MOBIL SUPER 3000 X1 (SAE 5 W 40)		MOBIL
MOTUL 4100 TURBO-LIGHT (SAE 10 W 40)		MOTUL
MOTUL 6100 SYNERGIE + (SAE 5 W 40)		MOTUL
MOTUL 6100 SYNERGIE + (SAE 10 W 40)		MOTUL
MOTUL 8100 X Cess (SAE 5 W 40)		MOTUL
MOTUL 8100 X Clean (SAE 5 W 40)		MOTUL
PENTOLUB PERFORMANCE (SAE 10 W 40)		PENTOSIN
PENTOSIN (SAE 5 W 40)		PENTOSIN



Trade Name		Packaging	Supplier
SHELL HELIX HX7 (SAE 5 W 40)			SHELL
SHELL HELIX ULTRA E (SAE 5 W 30)			SHELL

### 3.82 Engine oil lubricant: Diesel - VW 507 00

Trade Name		Packaging	Supplier
CASTROL EDGE PROFESSIONAL LONGLIFE III (SAE 5 W 30)	1 litre	G 052 195 R2	VOLKSWAGEN
MOTUL SPECIFIC DPF DIESEL (SAE 5 W 30)			MOTUL
PENTO SUPER PERFORMANCE III (SAE 5 W 30)			PENTOSIN
SHELL HELIX ULTRA EXTRA (SAE 5 W 30)			SHELL
SHELL HELIX ULTRA ECT (SAE 5 W 30)			SHELL
MOBIL 1 ESP FORMULA			MOBIL

### 3.83 Engine lubricant oil: Petrol and Totalflex - VW 508 88

Trade Name		Packaging	Supplier
CASTROL MAGNATEC PROFESSIONAL 508 88 (SAE 5 W 40)	1 litre	G 052 553 R2	VOLKSWAGEN
ELAION F50 PLUS (SAE 5 W 40)			YPF
IPIRANGA F1 MASTER SYNTHETIC SN (SAE 5 W 40)			IPIRANGA
MOTUL SPECIFIC 508 88 509 99 (SAE 5 W 40)			MOTUL
PENTO-SYNTH R (SAE 5 W 40)			PENTOSIN
MOBIL SUPER 3000 X3			MOBIL



Trade Name		Packaging	Supplier
HAVOLINE ULTRA W			CHEVRON

### 3.84 Diesel engine lubricant oil - VW 509 99

Trade Name		Packaging	Supplier
CASTROL MAGNATEC PROFESSIONAL 508 88 (SAE 5 W 40)	1 litre	G 052 553 R2	VOLKSWAGEN
ELAION F50 PLUS (SAE 5 W 40)			YPF
IPIRANGA F1 MASTER SYNTHETIC SN (SAE 5 W 40)			IPIRANGA
MOTUL SPECIFIC 508 88 509 99 (SAE 5 W 40)			MOTUL
PENTOSIN			
PENTOSIN			
MOBIL SUPER 3000 X3			MOBIL
HAVOLINE ULTRA W			CHEVRON

### 3.85 Lubricating oil for manual gearbox and steering box - SAE 90, MIL-L-2105B, API-GL5

Trade Name		Packaging	Supplier
CASTROL MAX-TRON 90			CASTROL
ESSO GEAR OIL GX			ESSO
IPIRGEROL SP 90			IPIRANGA
MOBILUBE HD 90			MOBIL
LUBRAX TRM 5			PETROBRÁS
SHELL SPIRAX A 90			SHELL
MULTIGEAR EP 90			TEXACO

### 3.86 Lubricating oil for manual gearbox - SAE 80, MIL-L-2105, API-GL4

Trade Name		Packaging	Supplier
IPIRGEROL EP 80			IPIRANGA
CASTROL UNI-TRON 80 W			CASTROL
ESSO GEAR OIL GP 80 W			ESSO
MOBILUBE GX 80 W			MOBIL



Trade Name	Packaging	Supplier
LUBRAX TRM -4		PETROBRÁS
SHELL SPIRAX G		SHELL
80 W		
UNIVERSAL EP		TEXACO

**3.87 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 005 000	1 litre	VOLKSWAGEN

**3.88 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 052 157 A2	0.5 litre	VOLKSWAGEN

**3.89 Special oil**

Trade Name	Packaging	Supplier
G 052 172 A1	30 ml	VOLKSWAGEN
G 052 172 M2	100 ml	VOLKSWAGEN

**3.90 Oil for manual gearbox**

Trade Name	Packaging	Supplier
G 070 726 A2	1 litre	VOLKSWAGEN

**3.91 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 052 171 A2	1 litre	VOLKSWAGEN

**3.92 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 070 726 A2	1 litre	VOLKSWAGEN

**3.93 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 060 726 A2	1 litre	VOLKSWAGEN

**3.94 Lubricating oil for manual gearbox - SAE 75W90**

Trade Name	Packaging	Supplier
G 070 726 A2	1 litre	VOLKSWAGEN



3.95 Lubricating oil for manual gearbox - SAE 75W90

Trade Name	Packaging	Supplier
G 052 512 A2	1 litre	VOLKSWAGEN

3.96 Lubricating oil for power steering

Trade Name	Packaging	Supplier
G 004 000 M2	1 litre	VOLKSWAGEN

3.97 Lubricating oil for automatic gearbox and power steering

Trade Name	Packaging	Supplier
325 029 901-1	20 litre	VOLKSWAGEN

3.98 Lubricating oil for the automatic gearbox differential - SAE 75W90

Trade Name	Packaging	Supplier
G 052 145 S2	1 litre	VOLKSWAGEN

3.99 VW ATF oil for power steering

Trade Name	Packaging	Supplier
G 052 162 A2	1 litre	VOLKSWAGEN

3.100 VW ATF oil for power steering

Trade Name	Packaging	Supplier
G 052 990 A2	1 litre	VOLKSWAGEN

3.101 ATF oil for automatic gearboxes

Trade Name	Packaging	Supplier
G 055 515 A2	850 ml	VOLKSWAGEN

3.102 VW ATF oil for power steering

Trade Name	Packaging	Supplier
G 055 025 A2	1 litre	VOLKSWAGEN

3.103 Oil for gear selection mechanism

Trade Name	Packaging	Supplier
G 052 512 S1	1 litre	VOLKSWAGEN

3.104 Air conditioning compressor oil - R 134a

Trade Name	Packaging	Supplier
G 052 154 A2	250 ml	VOLKSWAGEN

3.105 Oil for the air conditioning compressor

Trade Name	Packaging	Supplier
G 052 154 A2	250 ml	VOLKSWAGEN



### 3.106 Lubricating oil for assembly

Trade Name	Packaging	Supplier
G 294 421 A1	100 ml	VOLKSWAGEN

### 3.107 White lubricating grease

Trade Name	Packaging	Supplier
DUOTEMPI PMY-45		KLÜBER
MOLYKOTE D		LUMOBRÁS

### 3.108 Moly grease

Trade Name	Packaging	Supplier
G 052 723 A2	50 ml	VOLKSWAGEN

### 3.109 Molybdenum bisulphate lubricating grease

Trade Name	Packaging	Supplier
UNIMOLY R 55/10		KLÜBER
MOLYKOTE G PASTE		LUMOBRÁS

### 3.110 Copper grease

Trade Name	Packaging	Supplier
MOLIKOTE (r) CU-7439 PLUS		LUMOBRÁS

### 3.111 Silicon grease

Trade Name	Packaging	Supplier
G 052 565 A1	20 g	VOLKSWAGEN

### 3.112 High temperature paste

Trade Name	Packaging	Supplier
G 052 112 A3	170 g	VOLKSWAGEN

### 3.113 Primer

Trade Name	Packaging	Supplier
D 181,711 A1	10 ml	VOLKSWAGEN

### 3.114 Glass primer

Trade Name	Packaging	Supplier
D 009 200 02	10 ML	VOLKSWAGEN

### 3.115 Adhesive remover

Trade Name	Packaging	Supplier
D 002 000 A2	900 ML	VOLKSWAGEN



### 3.116 Cleaning remover

Trade Name	Packaging	Supplier
LVM 020 100 A5	2.5 litres	VOLKSWAGEN

### 3.117 Corrosive paste

Trade Name	Packaging	Supplier
GRATECRIL ACTIVATED TLB 1012	125 g TUBES	GRATEC SISTEM

### 3.118 Odourless solvent

Trade Name	Packaging	Supplier
RUTILOS 40	20-LITER CONTAINERS	QUAKER CHEMICAL
FORMISOLV 710	20-LITER CONTAINERS	FORMIQUIMICA

### 3.119 Cleaning solution

Trade Name	Packaging	Supplier
D 009 401 04	250 ML	VOLKSWAGEN

### 3.120 Engine leak detection spray

Trade Name	Packaging	Supplier
G 001 800 A1	200 ML	VOLKSWAGEN

### 3.121 Cylinder lubricating spray

Trade Name	Packaging	Supplier
G 052 778 A2	50 ML	VOLKSWAGEN

### 3.122 Primer for polyurethane surface

Trade Name	Packaging	Supplier
# 2287	1-LITER JARS	VOLKSWAGEN
P.8220	0.9-LITER JARS	VOLKSWAGEN

### 3.123 Adhesive sealant

Trade Name	Packaging	Supplier
D 176,501 A1	50 ml	VOLKSWAGEN

### 3.124 Mixing tube

Trade Name	Packaging	Supplier
D 001 001	50 ml	VOLKSWAGEN



Note

Can be used with D 001 730 A2



### 3.125 Liquid sealant

Trade Name	Packaging	Supplier
D 185,400 A2	50 ml	VOLKSWAGEN

### 3.126 Silicone sealant for engines

Trade Name	Packaging	Supplier
D 176 404 M2	80 ML TUBES	VOLKSWAGEN

### 3.127 Sealant for exhaust connections

Trade Name	Packaging	Supplier
TMX 386	3.6-LITER TINS	SOLPLÁS
UV-93	3.6-LITER TINS	BRASCOLA
AIR DRYING SEAL-ANT	3.6-LITER TINS	HENKEL

### 3.128 Teflon thread sealant

Trade Name	Packaging	Supplier
VIBRA-SEAL 503	15 g and 250 g TUBES	LOCTITE



## 4 Work Instructions for Handling Chemicals

### 4.1 General considerations

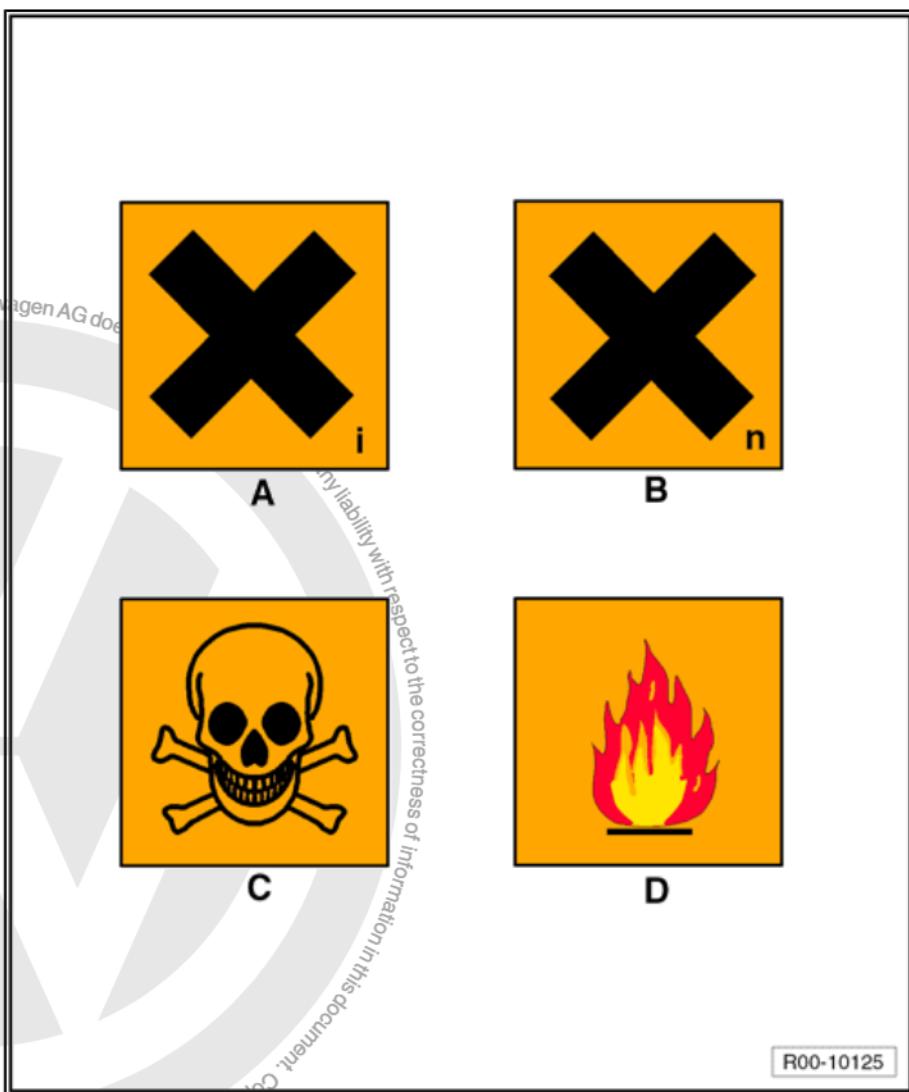
#### 4.1.1 Solvent Handling

##### ◆ Description of the Material

Solvents and their mixtures, e. g. hydrocarbons, halogens, alcohols, esters, ketones are liquid organic materials. This Safety Information applies to all solvents and water-free cleaning products, and hardeners, primers, separators, and all preparations used for this purpose as well.

Solvents can be classified as follows:

- A - Irritant
- B - Noxious
- C - Toxic
- D - Easily flammable



##### ◆ Applications

painting, cleaning and maintenance of parts.

##### ◆ Storage



Solvents must be stored in closed, identified safety containers. Storing solvents in beverage bottles is strictly prohibited. Keep only a volume sufficient to carry out the work in one shift in the workplace. Volumes exceeding the daily requirement must be stored in well ventilated, explosion-proof rooms.

◆ Work

Work with solvents requires the use of exhaust fans or environments with good ventilation. Greater quantities of easily flammable or flammable materials must be handled only in explosion-proof locations. To prevent spontaneous combustion, solvents must not come into contact with highly corrosive substances (e.g. chromic acid, organic peroxides, etc.).

Thus, the following should be observed:

- 1 - prevent contact with hot surfaces, alkalis, such as caustic soda, burnt lime or light metal chips.
- 2 - prevent contact with hot surfaces, alkalis, such as caustic soda, burnt lime or light metal chips.
- 3 - protect the material against sunlight.
- 4 - do not use open flames, such as welding torches.

In case of prolonged use or storage, mixtures of halogen and flammable solvents, such as cold cleaning products, classified as less flammable, may become flammable solutions, due to evaporation of the halogen component.

◆ Maintenance in confined spaces

Solvent vapours are heavier than air. Thus, they concentrate in wells and tanks. Accordingly, before starting work in these places, an "authorization for confined space" must be requested.

◆ Operational failures

Spilt solvent must be collected using appropriate absorption products. The products should be stored in closed containers with material identification and information on the content for future disposal.

◆ Protection against fire

When handling solvents, open flames, exposed lighting and smoking are prohibited. For fire extinguishers, use CO<sub>2</sub> and dry chemical powder.

◆ Health protection, hygiene at work

- 1 - When inhaled, most solvents have a narcotic effect and reduce ethanol tolerance. Some solvents, even in small concentrations, are noxious.
- 2 - In case of severe intoxication, remove the person to an outside or a well-ventilated location, until an ambulance arrives.
- 3 - Work uniforms heavily-stained with solvent should be changed and thoroughly cleaned.
- 4 - Workers who have handled solvents and later complain about health problems should consult a doctor immediately. The doctor must be informed about the solvents handled by the worker.
- 5 - Solvents have a degreasing effect on the skin. Using solvents to clean the skin is prohibited. In case contact with the skin is inevitable, treat the skin beforehand with protective cream.
- 6 - In workplaces where solvents are used, eating, drinking and storing food, especially close to chemicals, are prohibited.



7 - Smoking while handling solvents is prohibited, since there is risk of fire or formation of products that cause toxic reactions in atmospheres with high hydrocarbon and halogen contents.

◆ Personal protective equipment

In compliance with Standard 6 (NR-6) Ordinance 3214 of the Ministry of Labour, handling solvents requires the use of personal protective equipment, such as the following:

- 1 - gloves
- 2 - safety goggles
- 3 - protective clothing

◆ Environmental protection, waste treatment

Solvents must not be disposed of in the sewer network. These products must be collected into proper containers, which must be closed and identified, for future disposal or recycling.

#### 4.1.2 Work instruction - Flammable material handling

Flammable liquids are liquids, liquid mixtures or liquids with solid particles in solution or suspension (including substances classified in a different way, based on their hazardous characteristics) producing flammable vapours at temperatures up to 60.5 °C, in open vessel tests.

Flammable materials may be solid, liquid or gaseous. As they release oxygen, these materials burn and, under certain circumstances, may ignite explosively. Flammable materials cause irritations, corrosion, and noxious and toxic reactions.

In accordance with legislation, flammable materials are classified as follows:

◆ Extremely flammable: Substances or liquid mixtures, of which the flash point (temperature at which the substance may burst into flames) is below 0 °C and the boiling point is below 35 °C;

◆ Easily flammable:

substances or mixtures that may warm and ignite in the air at room temperature, without interference from any energy source;

substances or solid mixtures that may easily ignite after a brief contact with an ignition source and that keep burning after the source is removed;

For liquid substances, the flash point is lower than 21 °C. In contact with water or humid air, extremely flammable gases are released in dangerous volumes;

◆ Flammable: substances or liquid mixtures, the flash point of which is equal to or higher than 21 °C and lower than or equal to 55 °C.

Handling these materials requires that the following be observed:

- 1 - In places of work and storage, floors, desks or racks made of wood should not be used. The floor must be kept clean.
- 2 - Eating, drinking, smoking, and storing food or cigarettes are prohibited at the workplace and areas close to it.
- 3 - The required personal protective equipment, such as safety goggles, gloves, and, where applicable, aprons and rubber boots, must be used.
- 4 - Wet or excessively dirty clothing must be promptly changed. This clothing must not be dried. Work clothes - even those



slightly dirty - must be sorted and marked with the following warning before being sent to laundry: "CLOTHING CONTAMINATED WITH FLAMMABLE MATERIALS". These clothes must be washed in water.

- 5 - Contaminated or wet personal clothes must also be washed in water at home.
- 6 - Flammable materials must not come into contact with organic substances, such as oil, grease, and solvent, since there is risk of fire.
- 7 - While handling flammable materials, prevent spillage and dust. In case of leaks, spilt products must not be adsorbed by sawdust or disposed of in trash cans.
- 8 - Solid flammable materials must be swept or wet with absorption products. These materials must be collected into proper containers and sent, with indication of content, for disposal.
- 9 - In case flammable materials come into contact with the skin or eyes, wash them promptly with plenty of water (for at least 15 minutes). Then, consult a doctor. Inform about the product affecting the person.

#### 4.1.3 Handling used engine oil

##### ◆ Description of the material

Oils for four-cylinder engines comprise basically superior hydrocarbons with additives. At temperatures that can reach over 450 °C on the bottom of the piston, oxidation and other chemical reactions take place. In these processes reactive products are formed, such as "polycyclic aromatic hydrocarbons".

##### ◆ Applications

Used engine oil is produced mostly in engine test workshops after long-running operational tests. It is also produced during oil change, for example, at a customer service centre, and from vehicles undergoing durability tests. For sealing quality control, these engine oils are submitted to thermal load.

##### ◆ Storage

Used engine oil must be collected and temporarily stored into metal containers with locks and the following warning:

"Caution. Used engine oil." Prevent contact with skin.

##### ◆ Work

Production-scale work at recovery facilities, unproductive application in used oil coagulation.

##### ◆ Maintenance

Observe the following items during maintenance activities: Operating failures - Leaks, Fire protection and Occupational hygiene and health preservation.

##### ◆ Operational failures - Leaks

In case spilt oil absorption is required, the spilt product must be stored in closed containers for future disposal.

##### ◆ Protection against fire

Engine oils are not classified as flammable materials, since their flash points are above 100 °C. To prevent spontaneous ignition, fire or explosion, cloths or other absorbent materials impregnated with oil must be stored in non-flammable containers with a cover.

##### ◆ Health protection and hygiene at work



Prolonged or repetitive contact with any type of engine oil results in skin degreasing. Skin drying, irritation or inflammation may occur. In addition, used engine oils contain hazardous substances classified as "polycyclic aromatic hydrocarbons". The following work hygiene precautions should be observed:

- 1 - Before handling used engine oils, apply appropriate skin protection.
- 2 - Preferentially, use warm water and soap to remove engine oil from skin.
- 3 - Solvents, cold cleaners, thinners, diesel oil should not be used for cleaning skin contaminated with engine oil.

◆ Personal protection equipment

The following equipment should be used:

- Goggles
- Sleeves
- Aprons

◆ Environmental protection, waste treatment

Used oils are classified as liquids hazardous to water. Do not dispose of used oil in the sewer system or the soil.





## 5 Application guide

### 5.1 Application guide

Repair group - 10 - Cylinders, Cylinder block, Support, Protector

APPLICATION	VALIDITY
Cylinder base gasket - lubricate	1.6-litre, air-cooled engine <a href="#">⇒ page 36</a>
Air-cooled engine housing - seal	1.6-litre, air-cooled engine <a href="#">⇒ page 37</a>
Cylinder block plugs - fasten	Water-cooled engines <a href="#">⇒ page 39</a>
Cylinder block plugs - seal	1.6-litre engine <a href="#">⇒ page 38</a>

Repair group - 13 - Crankshaft group

APPLICATION	VALIDITY
Needle bearing of the fastening hollow screw for the flywheel - lubricate	Air-cooled engines <a href="#">⇒ page 41</a>
Crankshaft needle bearing - lubricate	Engines - 1.6 , 1.8 and 2.0 L EA 827 , 2.0 L 16 V , 1.0 , 1.4 and 1.6 L - EA 111 , 1.0 16 V - EA 111 , 1.8 and 2.0 L - EA 113 <a href="#">⇒ page 40</a>
Flywheel fastening screw - lock	Air-cooled engines <a href="#">⇒ page 42</a>

Repair group - 15 - Cylinders, Cylinder block, Support, Protector

APPLICATION	VALIDITY
Intermediate shaft seal - lubricate for assembly	Engines - 1.6, 1.8 and 2.0 L EA 827 <a href="#">⇒ page 43</a>
Camshaft valve bearing cover (1st and 5th) - Seal	Engines - 1.0-litre - EA 111 (Tasse) <a href="#">⇒ page 44</a>
Cylinder head sealing gasket - glue	Air-cooled engines <a href="#">⇒ page 45</a>
Lower rear threaded pins fastening the cylinder head / rear threaded pin (crankshaft) / lower front threaded pins (flywheel) - Seal	Air-cooled engines <a href="#">⇒ page 46</a>
Cylinder head cover - seal	Engines - 1.0 L - EA 111 , 1.0 16 V - EA 111 <a href="#">⇒ page 49</a>
Cylinder head cover - seal	8 V engine RSH - <a href="#">⇒ page 48</a>
Cylinder head cover - seal	8 V Tasse Engine - <a href="#">⇒ page 47</a>

Repair group - 17 - Lubrication system

APPLICATION	VALIDITY
Engine crankcase - Fill / top up oil level	Engines - all <a href="#">⇒ page 50</a>
Engine crankcase - Fill / top up oil level	2.4 L Engine - Caravelle and Eurovan <a href="#">⇒ page 50</a>
Engine crankcase - Fill / top up oil level	2.0-litre engine - Amarok <a href="#">⇒ page 50</a>



APPLICATION	VALIDITY
Engine crankcase - seal	Engines - 1.6 , 1.8 and 2.0 L EA 827 , 1.0 , 1.4 and 1.6 L - EA 111 , 1.0 16 V - EA 111 , <a href="#">⇒ page 52</a>
Junction between crankcase gaskets and crankshaft front and rear flange gasket - seal	Engines - 1.6, 1.8 and 2.0 L EA 827 - UNF, UPQ, UDH, UQG - 2.0L 16 V <a href="#">⇒ page 51</a>

Repair group - 19 - Cooling system

APPLICATION	VALIDITY
Cooling system (G11) - fill / adjust additive proportion.	Engines - all until 05/01/2000 <a href="#">⇒ page 53</a>
Cooling system (G13) - fill / adjust additive proportion.	Engines - all from 05/02/2000 <a href="#">⇒ page 54</a>

Repair group - 20 - Fuel tank, fuel pump

APPLICATION	VALIDITY
Fuel tank - add additive	All petrol-only models <a href="#">⇒ page 55</a>
Accelerator pedal shaft - lubricate	All (except Kombi and E-gas vehicles) <a href="#">⇒ page 56</a>
Accelerator pedal fastening - lubricate	Kombi <a href="#">⇒ page 57</a>
Accelerator cable and cable end - accelerator pedal fastening - lubricate	Kombi <a href="#">⇒ page 58</a>

Repair group - 26 - Exhaust system

APPLICATION	VALIDITY
Exhaust connection - seal	All <a href="#">⇒ page 59</a>

Repair group - 28 - Ignition system, pre-ignition system

APPLICATION	VALIDITY
Ignition coils with final power stage - lubricate	All <a href="#">⇒ page 60</a>

Repair group - 30 - Clutch - control system

APPLICATION	VALIDITY
Clutch pedal bung - lubricate	Gol GTI 16 V and Parati GTI 16 V <a href="#">⇒ page 61</a>
Clutch control cable - lubricate	Gol, Parati, Saveiro and Santana <a href="#">⇒ page 62</a>
Clutch fork, contact with bearing - lubricate	Gearboxes - 013 <a href="#">⇒ page 63</a>
Clutch fork bungs - lubricate	Gearboxes - 013 <a href="#">⇒ page 64</a>
Wing nut for clutch control cable adjustment - lubricate	Gearbox - 081 <a href="#">⇒ page 65</a>
Sealing ring for the clutch bearing guide - lubricate for assembly	Gearboxes - MQ 200 and 250 <a href="#">⇒ page 66</a>
Clutch cable - lubricate	Kombi <a href="#">⇒ page 67</a>
Clutch fork and clutch actuating lever - lubricate	Gearbox -081 <a href="#">⇒ page 68</a>
Clutch pedal fastening - lubricate	Kombi <a href="#">⇒ page 69</a>



APPLICATION	VALIDITY
Clutch actuating lever - lubricate	Gearbox -081 ⇒ <a href="#">page 70</a>
Input shaft splines - lubricate	Gearboxes - 013 1.0 L , 013 - 1.6 , 1.8 E 2.0 L ⇒ <a href="#">page 71</a>
Clutch pedal / clutch pedal bung	All (except Kombi) ⇒ <a href="#">page 72</a>
Pedal support - seal	Gol , Parati, and Saveiro - 98 ► ⇒ <a href="#">page 73</a>
Clutch fork contact with the hydraulically activated cylinder of the gearbox clutch - lubricate	Gearbox - CNX ⇒ <a href="#">page 74</a>
Fastening flange for clutch slave cylinder - seal	Gearbox - CNX ⇒ <a href="#">page 75</a>

Repair group - 34 - Drive, housing

APPLICATION	VALIDITY
Linkage rod, front/rear section - lubricate	Kombi ⇒ <a href="#">page 76</a>
Gear lever bearing - lubricate	All (except Kombi) ⇒ <a href="#">page 77</a>
Manual gearbox - Fill / top up level	Gearbox - CNX ⇒ <a href="#">page 78</a>
Manual gearbox - Fill / top up level	Gearboxes - 013 - 1.0 L 013 - 1.6 , 1.8 E 2.0 L ⇒ <a href="#">page 79</a>
Manual gearbox - Fill / top up level	Gearbox - MQ 250 ⇒ <a href="#">page 80</a>
Manual gearbox - Fill / top up level	Gearbox - MQ 200 ⇒ <a href="#">page 81</a>
Manual gearbox - Fill / top up level	Gearbox -081 - Kombi ⇒ <a href="#">page 82</a>
Plastic sleeves for the linkage rod coupling system / linkage rod / supports (on the gearbox)	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 83</a>
Gear lever guide plate - lubricate	Kombi ⇒ <a href="#">page 84</a>
Rubber shim for the clutch compartment cover - glue	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 85</a>
Clutch compartment cover - seal	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 86</a>
Linkage rod bellows for the gear lever assembly - fasten / seal	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 87</a>
Housing junction (transfer box / differential) and differential cover housing - seal	Gearbox - CNX ⇒ <a href="#">page 88</a>
Gear lever handle - fasten	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 89</a>
Gearbox cushion - lubricate	Polo and Fox manual gearbox ⇒ <a href="#">page 91</a>
Fastening screw for the rear support of the gearbox cushion - seal	Gearboxes - 013 - 1.0 L 013 - 1.6 , 1.8 E 2.0 L ⇒ <a href="#">page 90</a>
Gear selection mechanism - fill up	Automated gearboxes SQ 200 ⇒ <a href="#">page 92</a>



APPLICATION	VALIDITY
Electric connectors of the gear selection mechanism - apply nyogel	Automated gearboxes SQ 200 ⇒ <a href="#">page 93</a>

## Repair group - 35 - Gears and shafts

APPLICATION	VALIDITY
Input shaft splines - lubricate	Gearbox - 081 ⇒ <a href="#">page 94</a>
Fastening screw for the 5th gear synchronizer / clutch assembly - lock	Gearboxes - 013 - 1.0 L , 013 - 1.6 , 1.8 E 2.0 L ⇒ <a href="#">page 95</a>

## Repair group - 37 - Drive, housing

APPLICATION	VALIDITY
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 01M ⇒ <a href="#">page 96</a>
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 09A ⇒ <a href="#">page 97</a>
Planetary gear box (automatic gearbox) - Fill / top up oil level	Gearbox - 09G ⇒ <a href="#">page 98</a>

## Repair group - 39 - Gearbox shafts, differential

APPLICATION	VALIDITY
Gearbox side seals - lubricate	Gearboxes - 013 - 1.0 L 013 - 1.6 , 1.8 and 2.0 L 081 ⇒ <a href="#">page 99</a>
Planetary and satellite gears - lubricate for assembly	Gearbox - 081 ⇒ <a href="#">page 100</a>
Automatic gearbox differential - top up oil level	Gearbox - 01M ⇒ <a href="#">page 101</a>
Differential cover with gearbox housing - seal	Gearboxes - 013 - 1.0 L , 013 - 1.6 , 1.8 E 2.0 L ⇒ <a href="#">page 102</a>

## Repair group - 40 - Front suspension

APPLICATION	VALIDITY
Constant velocity joint spline - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 103</a>
Inner and outer constant velocity joint - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 104</a>
Front wheel bearing mounting - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 105</a>
Axle end - lubricate	Kombi ⇒ <a href="#">page 106</a>
King pin bearing - lubricate	Kombi ⇒ <a href="#">page 108</a>
Front axle beam - lubricate	Kombi ⇒ <a href="#">page 109</a>
Suspension arms - lubricate	Kombi ⇒ <a href="#">page 110</a>
Front wheel bearing - lubricate	Kombi ⇒ <a href="#">page 111</a>
Passage hole for the speedometer cable in the wheel hub protector - seal	Kombi ⇒ <a href="#">page 112</a>



#### Repair group - 42 - Rear suspension

APPLICATION	VALIDITY
Inner and outer constant velocity joint - lubricate	Kombi ➤ <a href="#">page 104</a>
Shaft end splines - lubricate	Kombi ➤ <a href="#">page 114</a>
Rear torsion bar - lubricate	Kombi ➤ <a href="#">page 115</a>
Rear wheel hub - lubricate	Kombi ➤ <a href="#">page 116</a>
Rear wheel hub seal - lubricate	Kombi ➤ <a href="#">page 117</a>
Rear wheel bearing - lubricate	Kombi ➤ <a href="#">page 118</a>

#### Repair group - 46 - Brakes - Mechanical systems

APPLICATION	VALIDITY
Rear wheel brake shoe ends - lubricate	Gol, Parati, Saveiro, Santana and Kombi ➤ <a href="#">page 119</a>
Handbrake cable terminal - lubricate	Gol, Parati, Saveiro and Santana ➤ <a href="#">page 120</a>
Brake pedal safety pin - lubricate	Gol, Parati, Saveiro and Santana ➤ <a href="#">page 121</a>
Securing pin for the operating rod of the master cylinder plunger - lubricate	Kombi ➤ <a href="#">page 123</a>
Securing pin of the hand-brake lever - lubricate	Gol, Parati, Saveiro and Santana ➤ <a href="#">page 123</a>
Handbrake ratchet - lubricate	Kombi ➤ <a href="#">page 124</a>

#### Repair group - 47 - Brakes - Brake servo hydraulic system

APPLICATION	VALIDITY
Brake system - fill / top up	All ➤ <a href="#">page 125</a>
Guide pin for the support of the front disc brake cylinder (manufactured by Varga) - lubricate	Gol, Parati, Saveiro and Santana ➤ <a href="#">page 126</a>
Fastening screw for the front disc brake cylinder housing - lock	Gol, Parati, Saveiro and Santana with Vargas brake system ➤ <a href="#">page 127</a>

#### Repair group - 48 - Steering

APPLICATION	VALIDITY
Oil reservoir for the power steering system - Fill / top up oil level	Santana, Gol, Parati, Saveiro, Polo and Fox. ➤ <a href="#">page 128</a>
Oil reservoir for the power steering system - Fill / top up oil level	Santana, Golf, Passat, Polo Classic, Fox, Polo and Saveiro ➤ <a href="#">page 129</a>
Steering box - Fill / top up oil level	Kombi ➤ <a href="#">page 130</a>
Steering box mechanism - lubricate	Gol, Parati, Saveiro (Generation II, III and IV) and Santana ➤ <a href="#">page 131</a>
Adapter (sleeve) for the upper steering shaft - lock	Gol, Parati, Saveiro and Santana ➤ <a href="#">page 132</a>



Repair group - 53 - Body - Rear section

APPLICATION	VALIDITY
Bucket sealing membrane - glue	Saveiro Generation II , III and IV ⇒ <a href="#">page 133</a>
Rear side panel - protect the paint	Saveiro Generation II , III and IV ⇒ <a href="#">page 134</a>

Repair group - 55 - Covers, Protector

APPLICATION	VALIDITY
Bucket protective cover longitudinal member - glue the finishing	Saveiro ⇒ <a href="#">page 135</a>
Lower latch of the bonnet - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 136</a>
Damper eyelet for the rear and front lid	All ⇒ <a href="#">page 137</a>
Tailgate buffer - lubricate	Saveiro 2013 ► ⇒ <a href="#">page 10</a>

Repair group - 57 - Front doors / components / central lock

APPLICATION	VALIDITY
Front door lock - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 138</a>
Lock drive rod - lubricate	Kombi ⇒ <a href="#">page 139</a>
Noise insulation for lock operating rod - glue	All (except vehicles with cable operation) ⇒ <a href="#">page 140</a>
Inner door seal - glue	Kombi ⇒ <a href="#">page 141</a>

Repair group - 58 - Rear doors / components

APPLICATION	VALIDITY
Rear door lock - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 142</a>
Side door lock - lubricate	Kombi ⇒ <a href="#">page 143</a>

Repair group - 64 - Windscreens, windows, window mechanisms

APPLICATION	VALIDITY
Door window activation mechanism - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 144</a>
Vent window - seal	Kombi ⇒ <a href="#">page 153</a>
Vent window latch - lubricate	Kombi ⇒ <a href="#">page 145</a>
Front door window support - lubricate	Kombi ⇒ <a href="#">page 146</a>
Front door window activation mechanism - lubricate	Kombi ⇒ <a href="#">page 146</a>
Window crank fastening screw - lock	All (fastened with screw) ⇒ <a href="#">page 147</a>
Windscreen, side window glass and rear window glass - glue	All (except windows with finishing) ⇒ <a href="#">page 149</a>
Windscreen, side window glass and rear window glass - seal	All (except glued windows) ⇒ <a href="#">page 150</a>
Glass - engrave chassis number	All ⇒ <a href="#">page 151</a>
Front and rear door window guide groove - glue	Kombi ⇒ <a href="#">page 152</a>



Repair group - 66 - External equipment

APPLICATION	VALIDITY
Roof rack fastening screws - lock	Santana, Quantum and Parati ⇒ <a href="#">page 154</a>

Repair group - 68 - Internal equipment

APPLICATION	VALIDITY
Interior rearview mirror support - fasten	Santana ⇒ <a href="#">page 155</a>

Repair group - 70 - Lining/insulation

APPLICATION	VALIDITY
Door noise insulation - glue	All ⇒ <a href="#">page 156</a>
Noise insulation on rear side panel - glue	All ⇒ <a href="#">page 157</a>
Roof noise insulation - glue	All ⇒ <a href="#">page 158</a>
Door sealing membrane - glue	All ⇒ <a href="#">page 159</a>

Repair group - 72 - Seat framework

APPLICATION	VALIDITY
Front seat central sliding guide - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 160</a>
Front seat side sliding guides - lubricate	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 161</a>

Repair group - 87 - Air conditioning

APPLICATION	VALIDITY
Air conditioning system - refill with gas	All ⇒ <a href="#">page 162</a>
Air conditioning system - refill with oil	All ⇒ <a href="#">page 163</a>
Air conditioning pressure switch - seal	Gol, Parati, Saveiro and Santana ⇒ <a href="#">page 164</a>

Repair group - 90 - Instrument case, indicators

APPLICATION	VALIDITY
Windscreen ultrasound sensor - fasten	Santana ► 12.01, Gol and Parati ► 04.99

Repair group - 92 - Windscreen, rear window and headlight wiper and washer

APPLICATION	VALIDITY
Windscreen wiper operating rod - lubricate	Kombi ⇒ <a href="#">page 165</a>
Windscreen/rear window washer water tank - fill	All ⇒ <a href="#">page 166</a>

Repair group - 94 - Switches, lights, and external bulbs

APPLICATION	VALIDITY
Contact blade for turn signal switch - lubricate	All ⇒ <a href="#">page 167</a>



Repair group - 97 - Cables and electric harnesses

APPLICATION	VALIDITY
Gaskets for the plastic covers that cover the electric harnesses - seal	All <a href="#">≥ page 168</a>





## 6 Repair Group 10 - Cylinders, cylinder block, support, protector



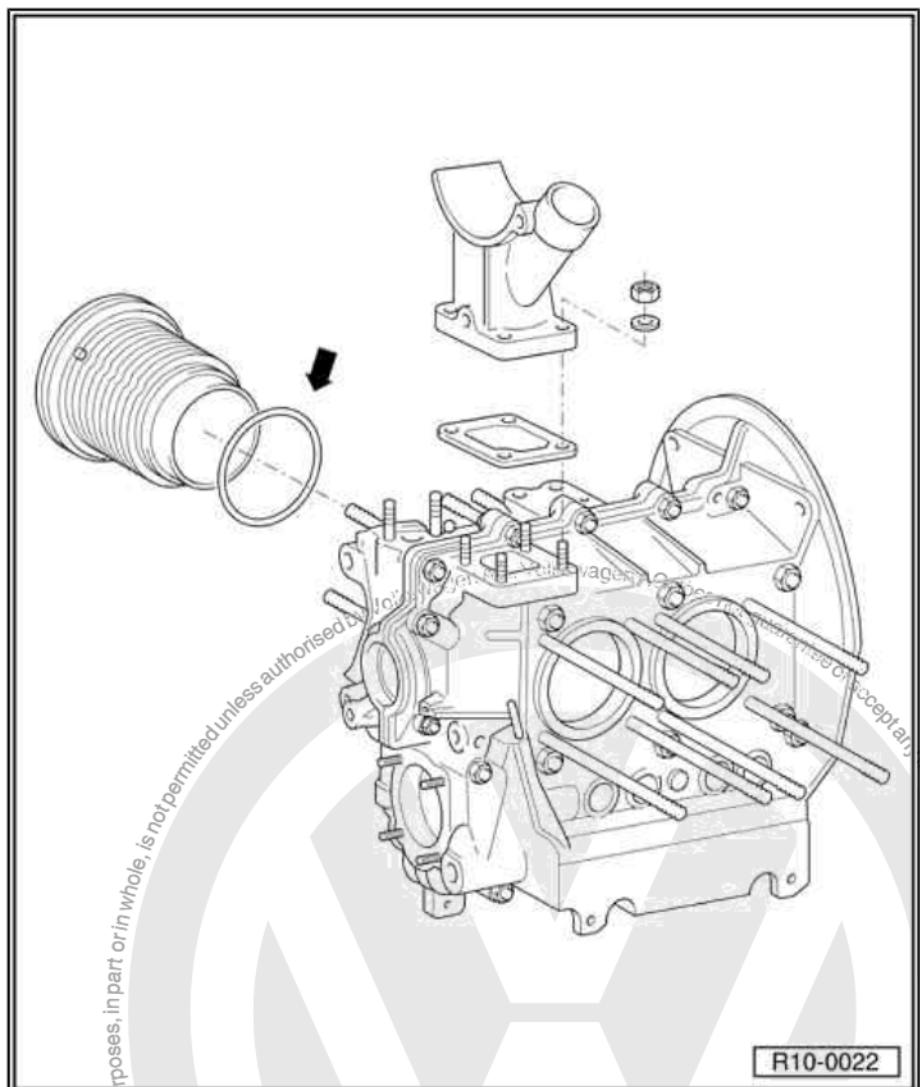
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 6.1 Cylinder base gasket - lubricate

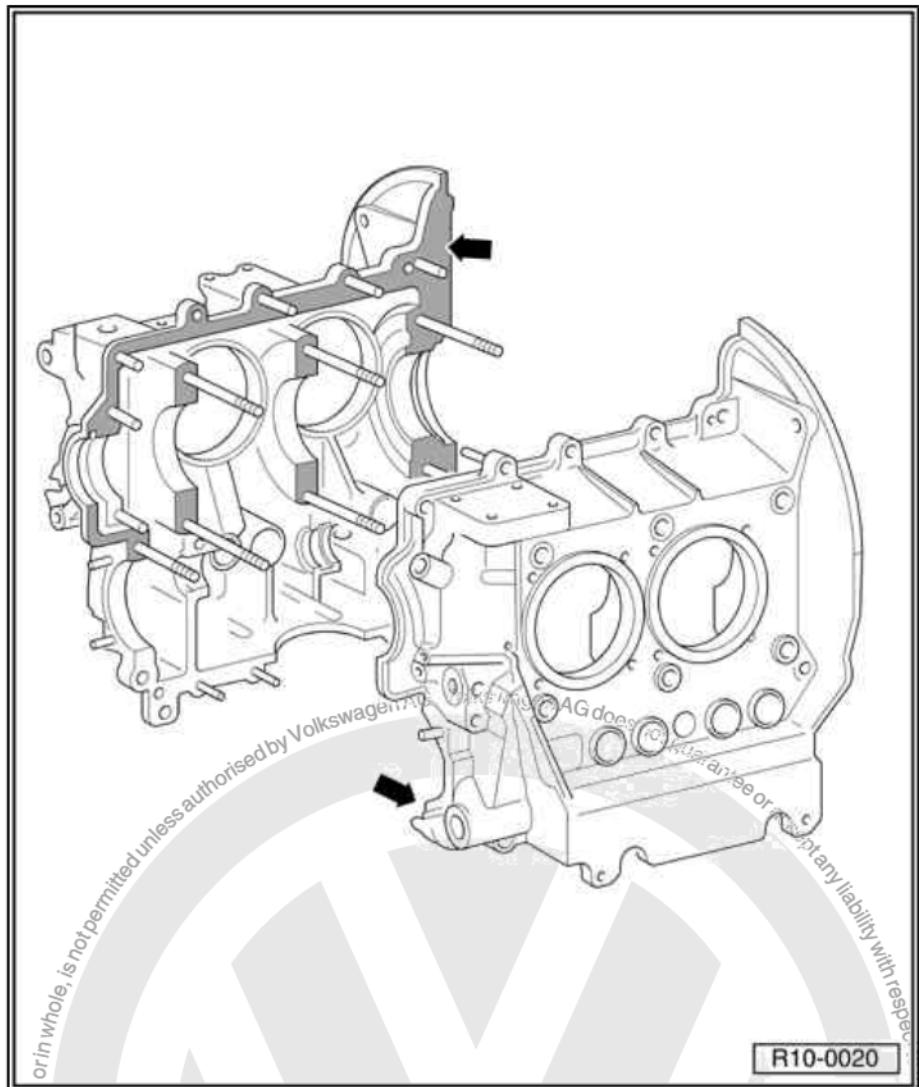
- Air-cooled engines
- Product used
- Multi-purpose grease  
⇒ [page 10](#)





## 6.2 Engine housing - seal

- Air-cooled engines
- Product used
- Sealing adhesive [⇒ page 7](#)

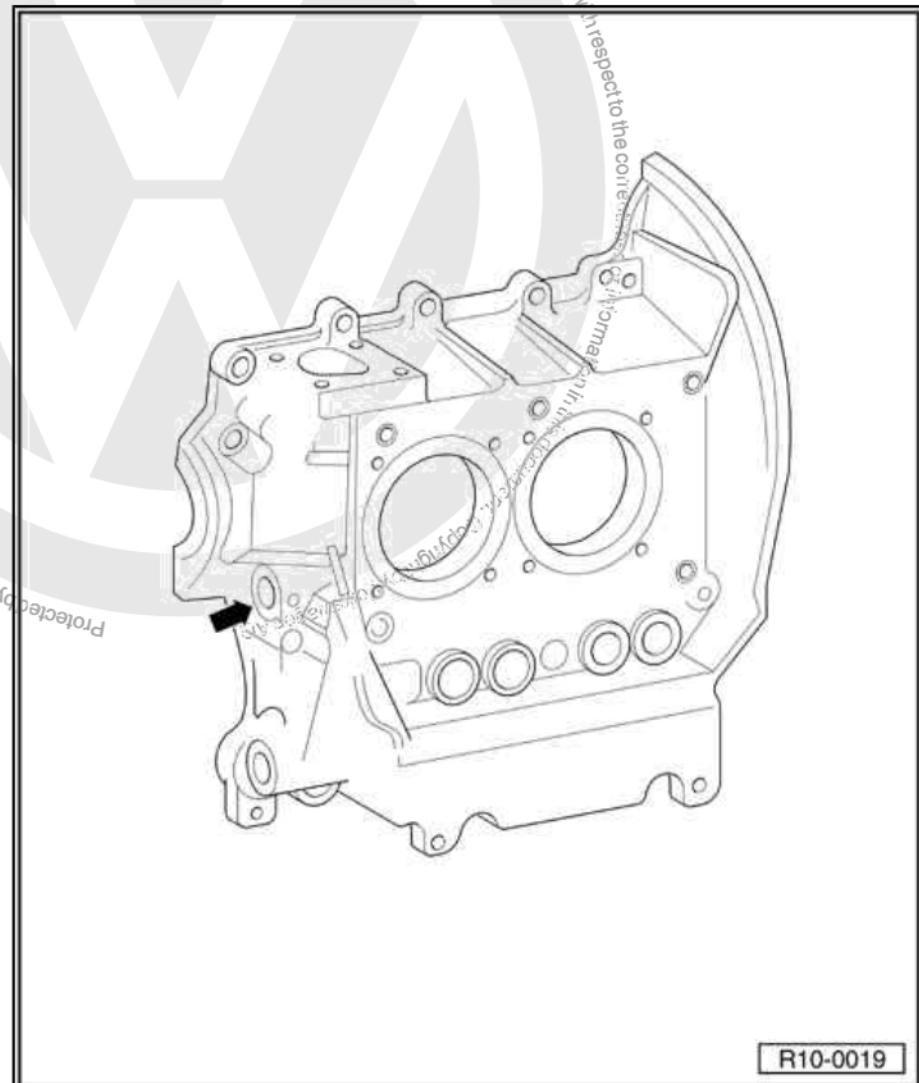


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## 6.3 Engine housing plugs - fasten

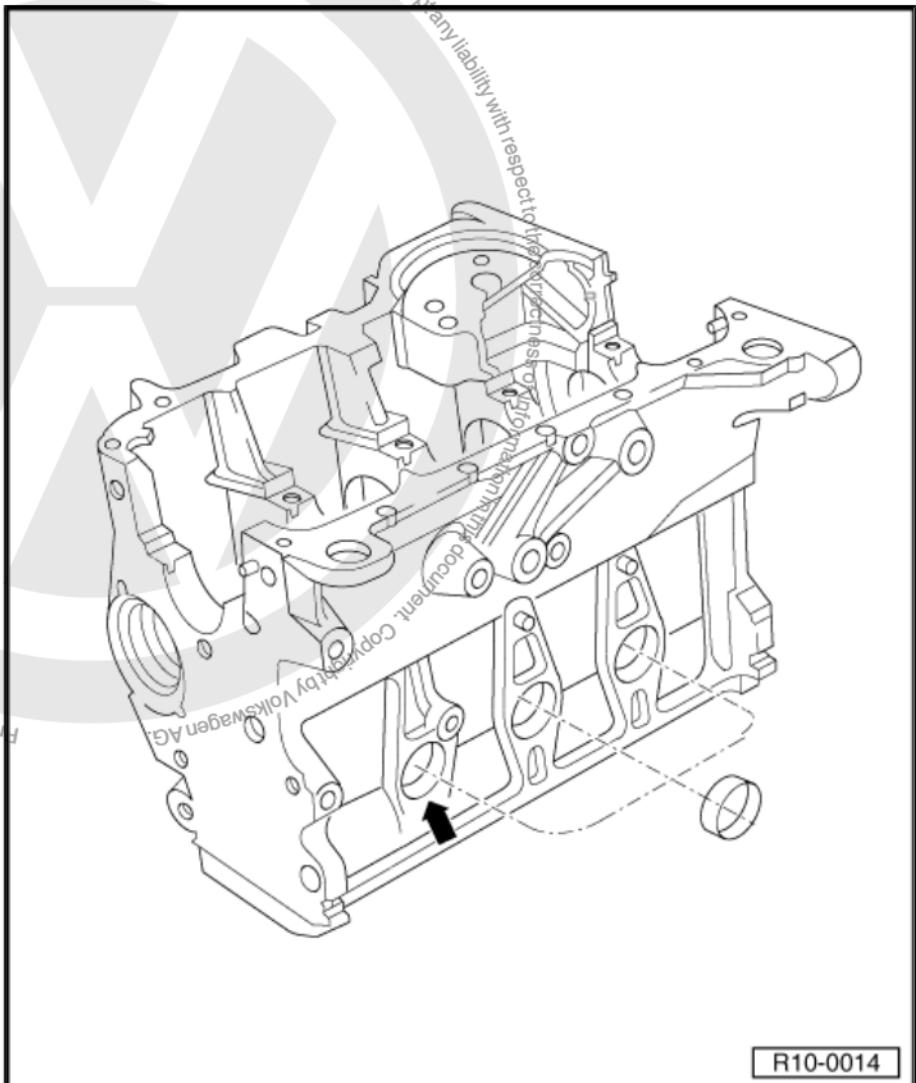
- Air-cooled engines
- Product used
- Medium torque locking adhesive ⇒ page 7





## 6.4 Cylinder block plugs - fasten

- Water-cooled engines
- Product used
- Locking adhesive for mechanical seal ⇒ page 6





## 7 Repair Group 13 - Crankshaft group



### WARNING

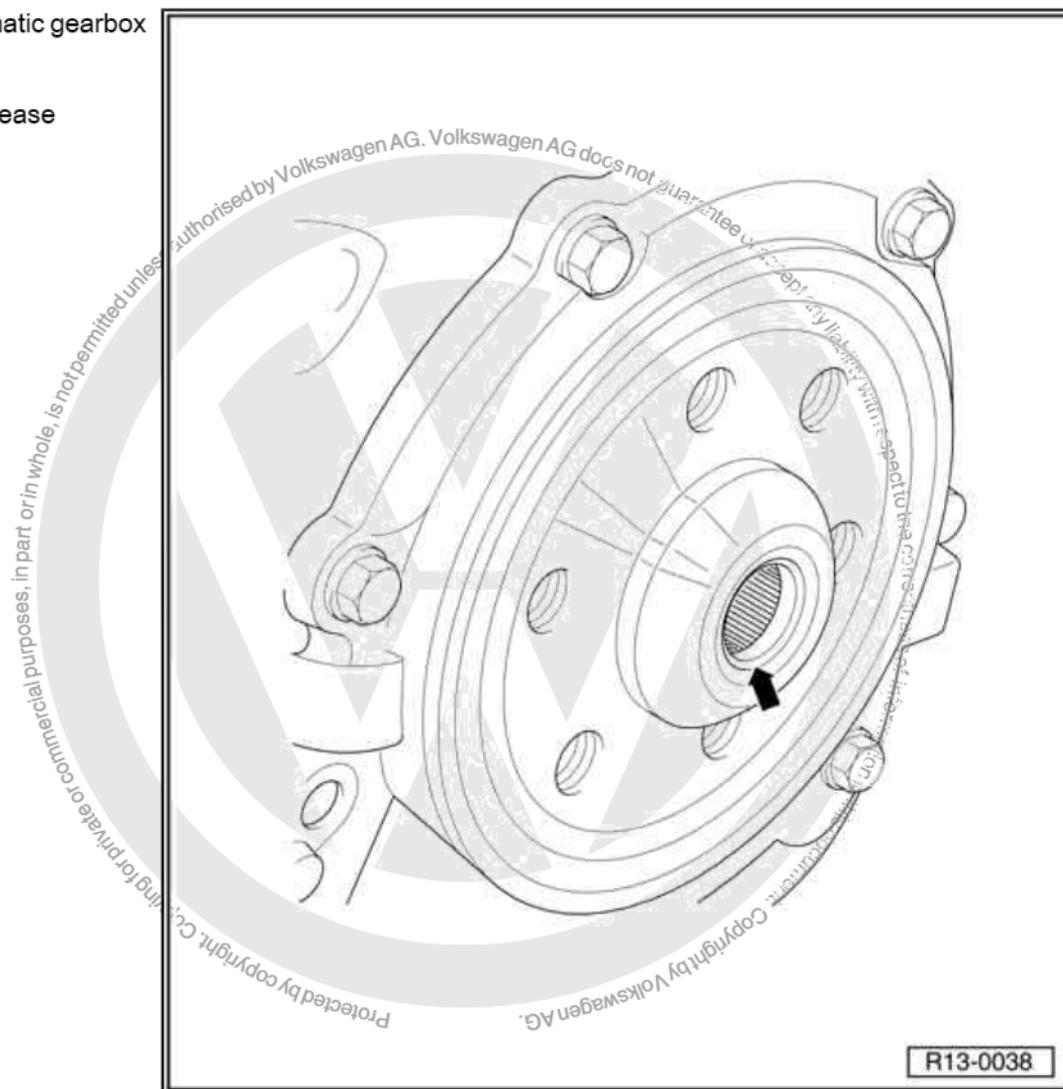
*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 7.1 Crankshaft needle bearing

- All, except automatic gearbox
- Product used
- Multi-purpose grease

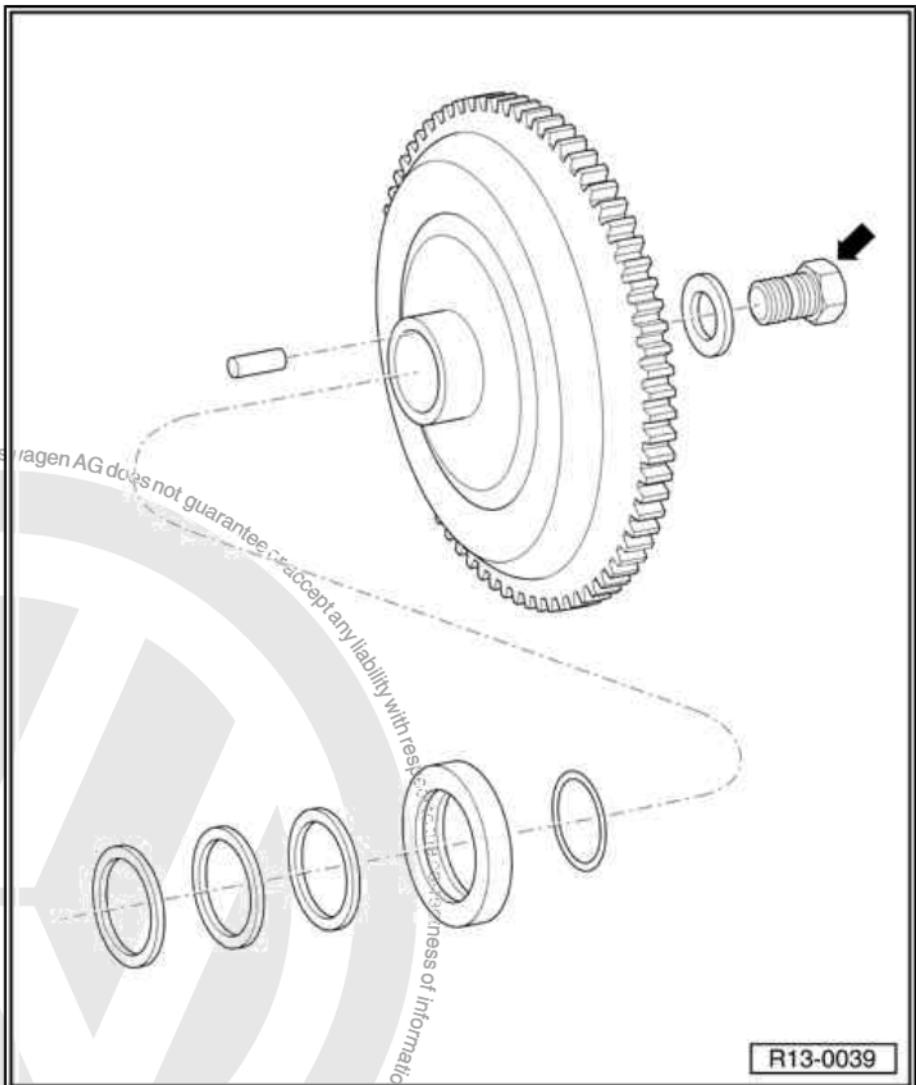
[⇒ page 10](#)





## 7.2 Needle bearing of the fastening hollow screw for the flywheel

- Air-cooled engines
- Product used
- Multi-purpose grease  
[⇒ page 10](#)

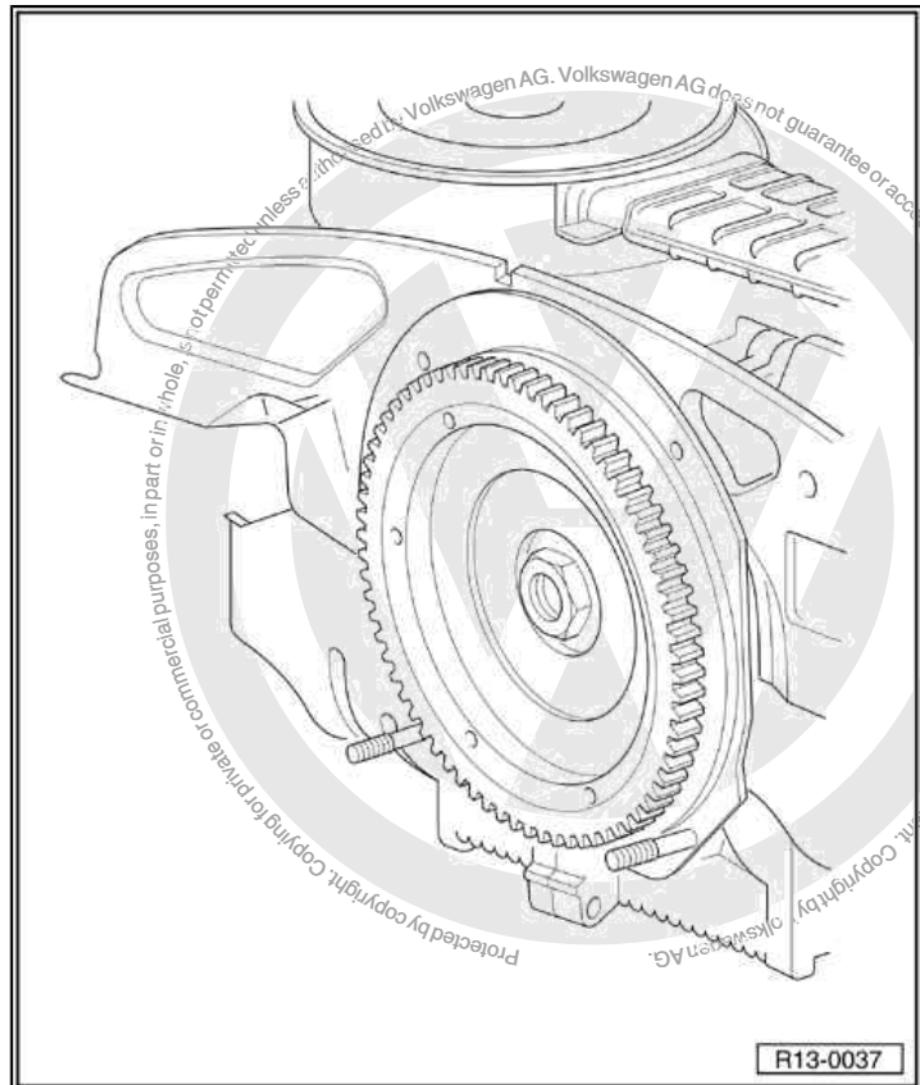


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## 7.3 Flywheel fastening screw - lock

- All
- Product used
- Low viscosity lock adhesive  
⇒ [page 6](#)





## 8 Repair Group 15 - Cylinder head, valve gear



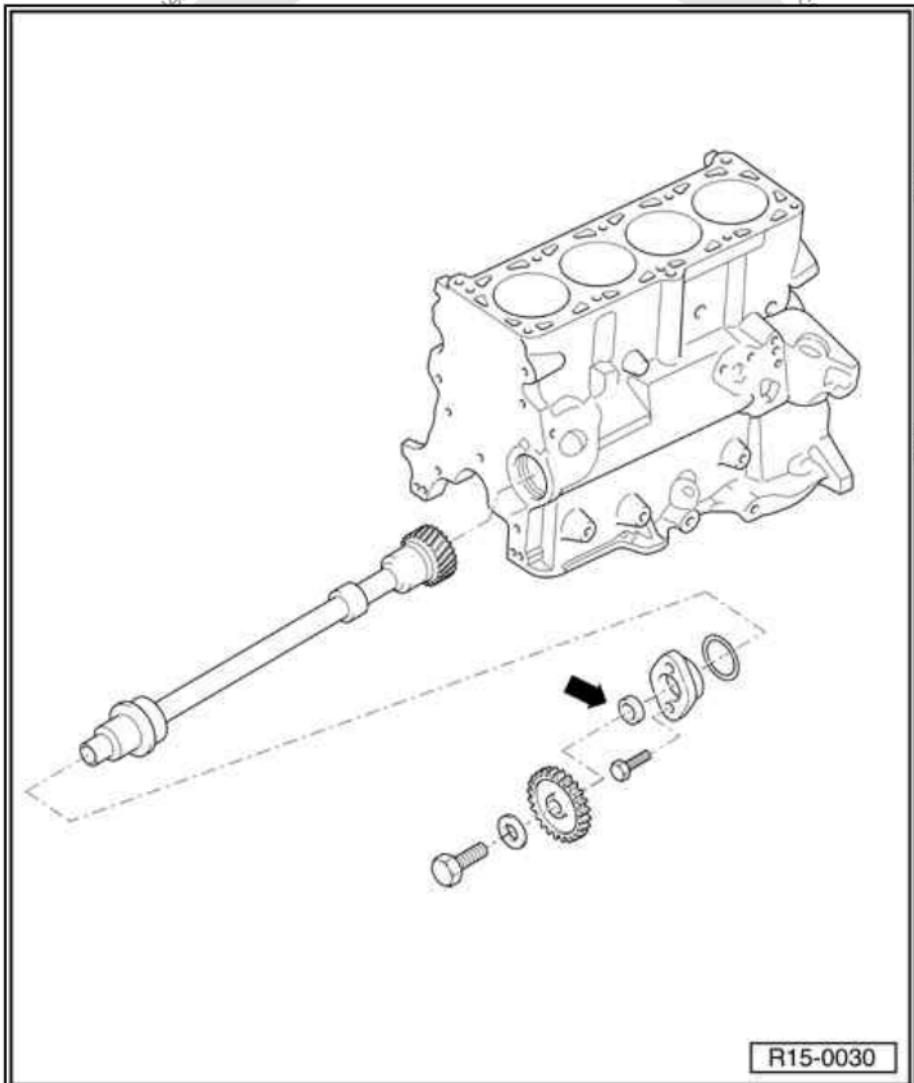
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 8.1 Intermediate shaft seal - lubricate for assembly

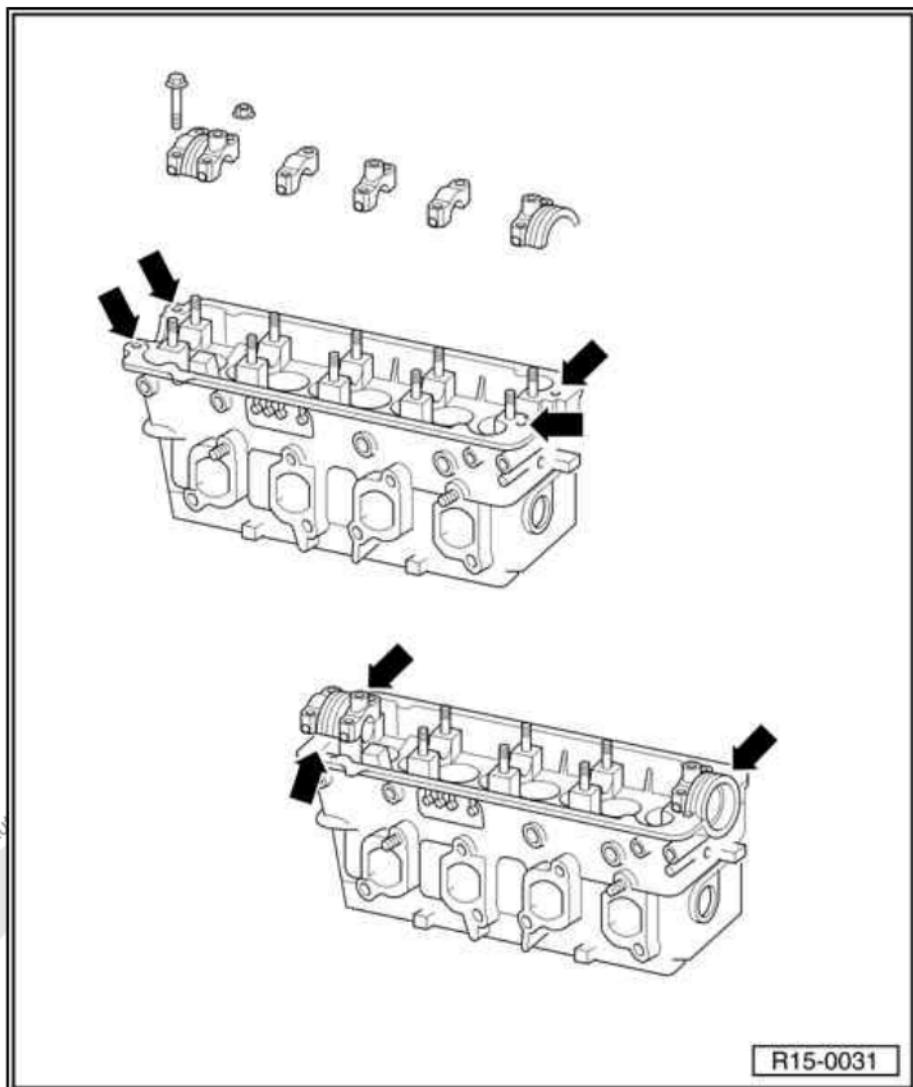
- AP engines, 1.6, 1.8 and 2.0
- Product used
- Lubricating paste for constant velocity joints [⇒ page 13](#)





## 8.2 Camshaft valve bearing cover (1st and 5th) - Seal

- AT engines, except RSH
- Product used
- Sealing compound for engines [page 13](#)

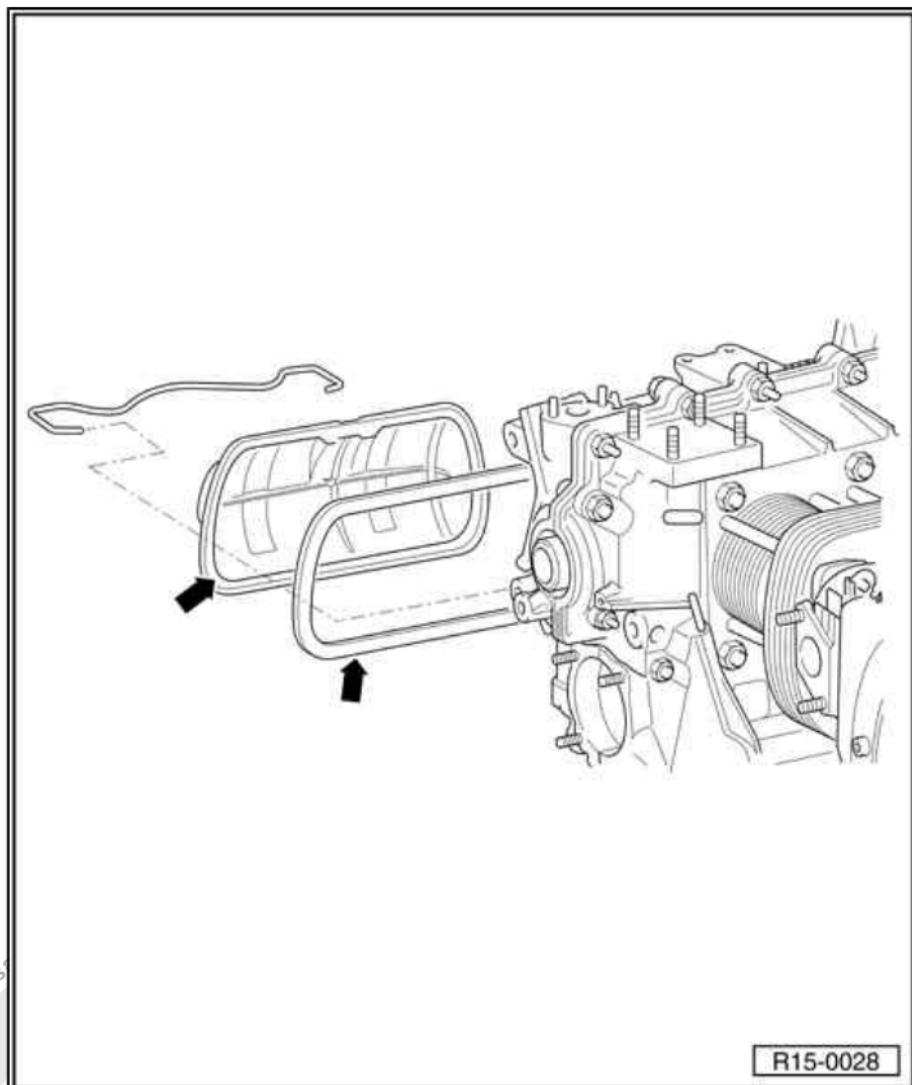


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### 8.3 Cylinder head sealing gasket - glue

- Air-cooled engines
- Product used
- Sealing gasket adhesive  
[⇒ page 5](#)

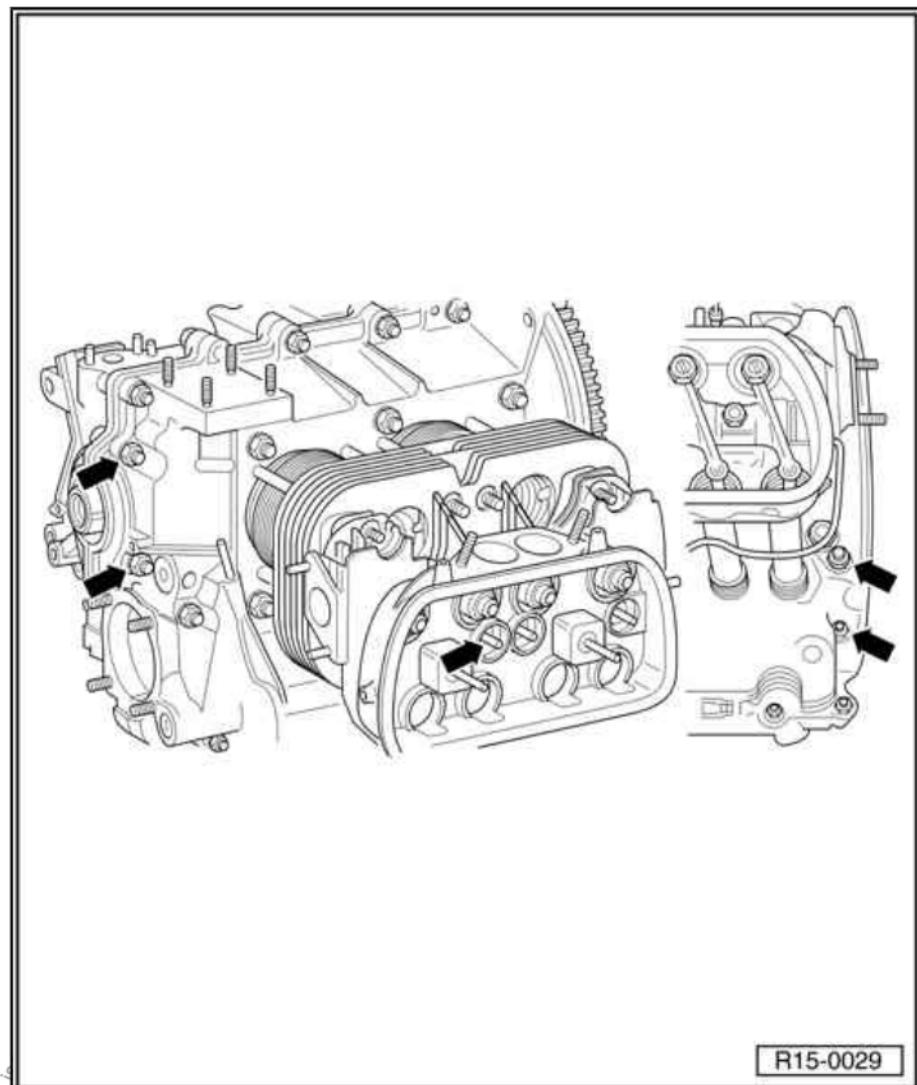


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8.4 Lower rear threaded pins fastening the cylinder head - rear threaded pin (crankshaft) / lower front threaded pins (flywheel) - Seal

- Air-cooled engines
- Product used
- Sealing adhesive [⇒ page 7](#)



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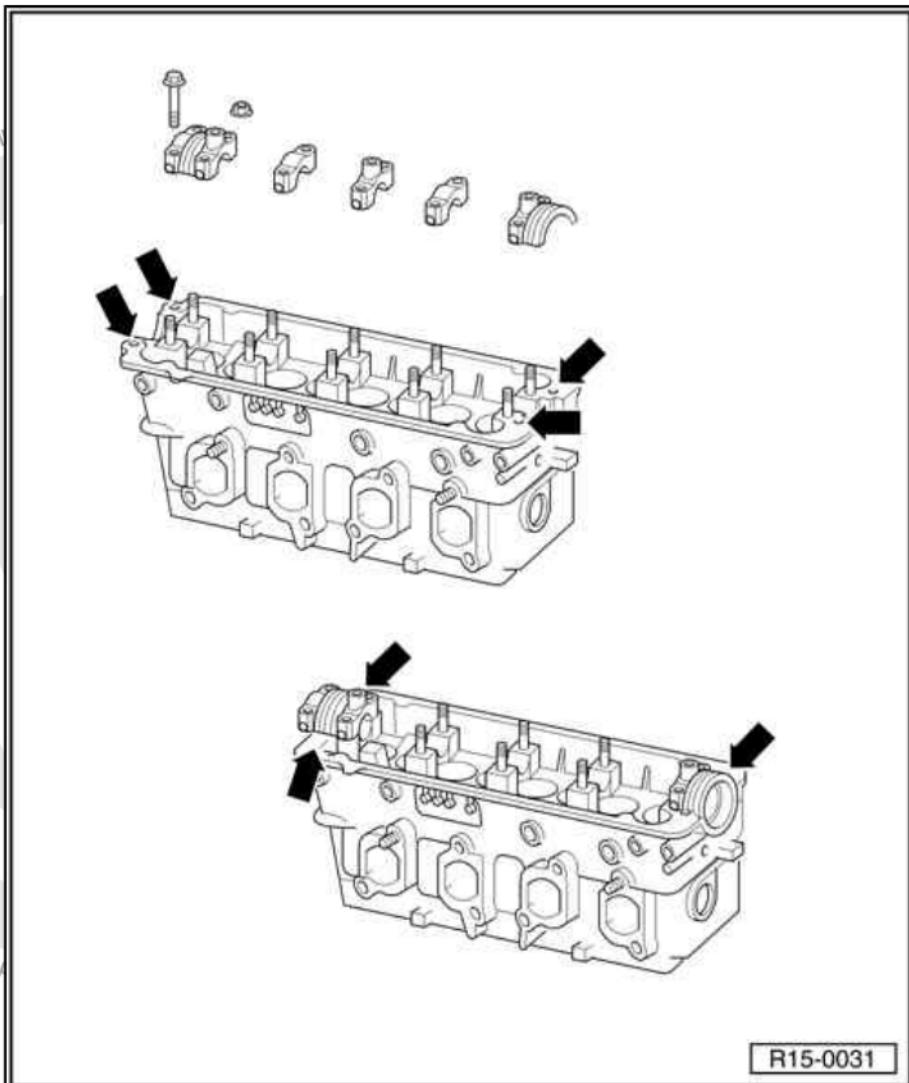
## 8.5 Cylinder head cover - seal

- AT engines, except RSH

- Product used

- Sealing compound for engines [⇒ page 13](#)

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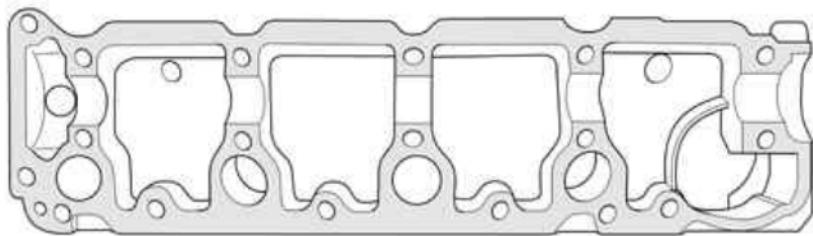


R15-0031



## 8.6 Cylinder head cover - seal

- 8V engine - RSH
- Product used
- Sealing compound for engines [≥ page 13](#)

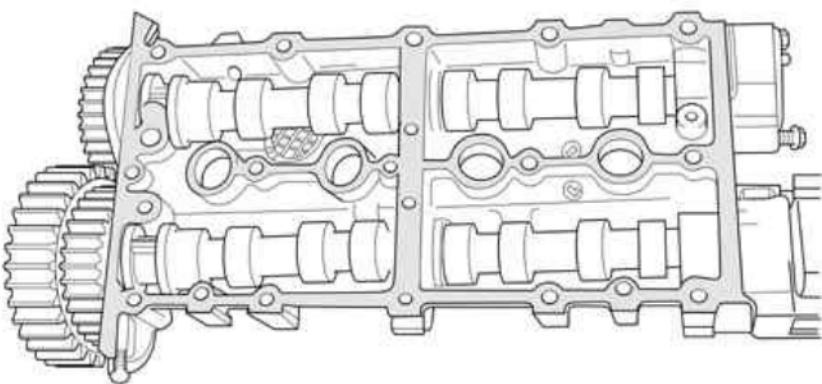


R15-0032



## 8.7 Cylinder head cover - seal

- 16 V engine - RSH
- Product used
- Sealing compound for engines [page 13](#)



R15-0033



## 9 Repair Group 17 - Lubrication system



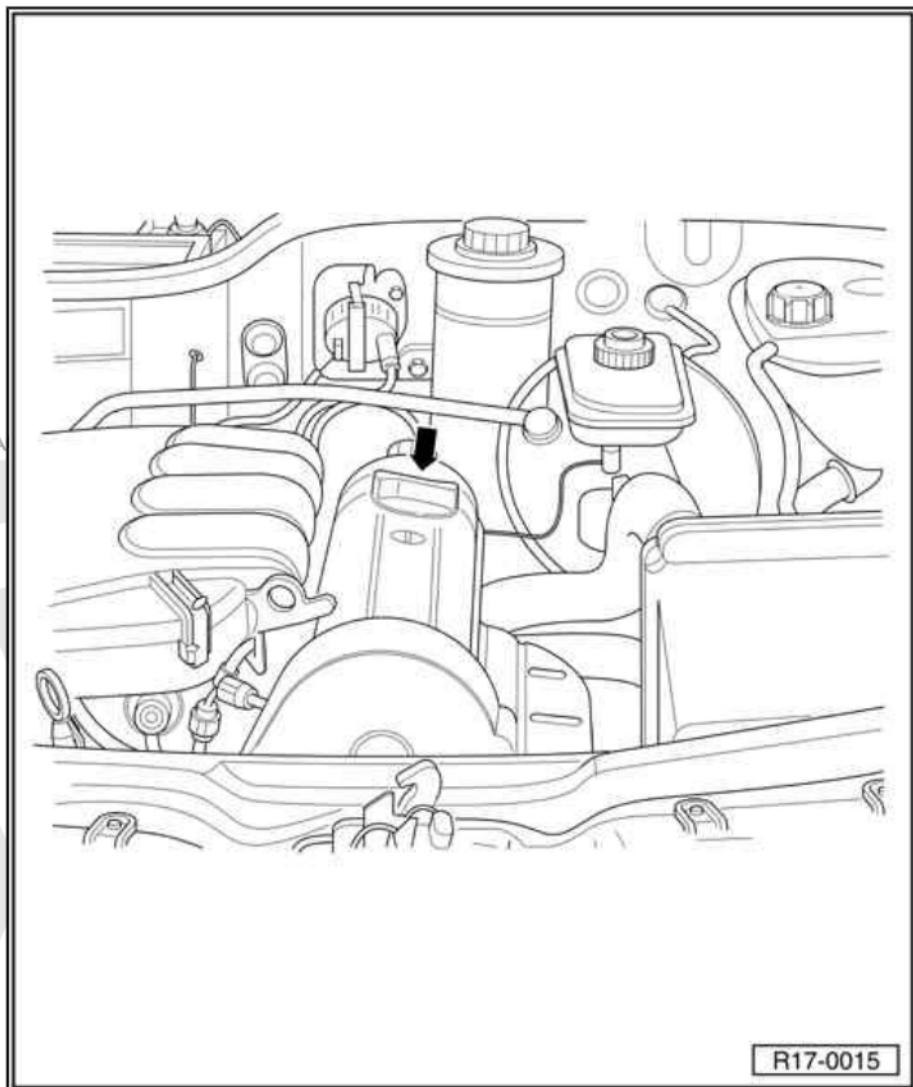
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 9.1 Engine crankcase - Fill / top up oil level

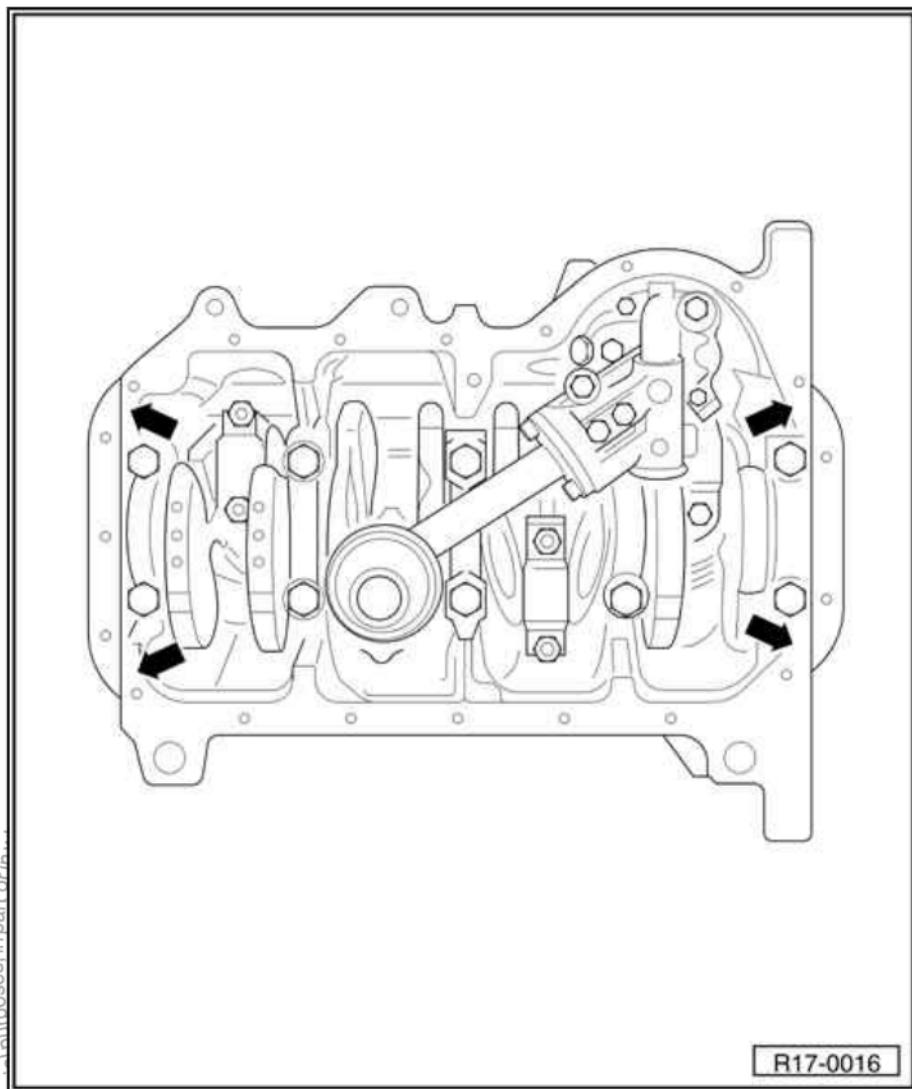
- Product used
  - Engines - All up to 11/2002 , except Passat 2001 ►
  - Multi-purpose engine lubricating, as per VW 501 01 standard [⇒ page 14](#)
  - Engines - For Passat 2001 ► and all as of 12/2002 ► 12/2014
    - Engine lubricating oil with high lubricating capacity, as per VW 502 00 standard [⇒ page 14](#)
  - Engines - all totalflex 2015 ►
    - Engine lubricating oil with high lubricating capacity, as per VW 508 88 standard [⇒ page 16](#)
  - Engines - 2.4 Caravelle and Eurovan
    - Lubricating oil for diesel engines - according to standard VW 505 00 [⇒ page 15](#)
  - Engines - 2.0 T Amarok (without diesel particulate filter - DPF)
    - Lubricant oil for diesel engines, according to standard VW 509 99 [⇒ page 17](#)
  - Engines - 2.0 T Amarok (with diesel particulate filter - DPF)
    - Lubricating oil for diesel engines - according to standard VW 507 00 [⇒ page 16](#)





## 9.2 Junction between crankcase gaskets and crankshaft front and rear flange gasket - seal

- AP engines with solid crankcase gasket
- Product used
- Engine sealing adhesive  
[⇒ page 6](#)



R17-0016

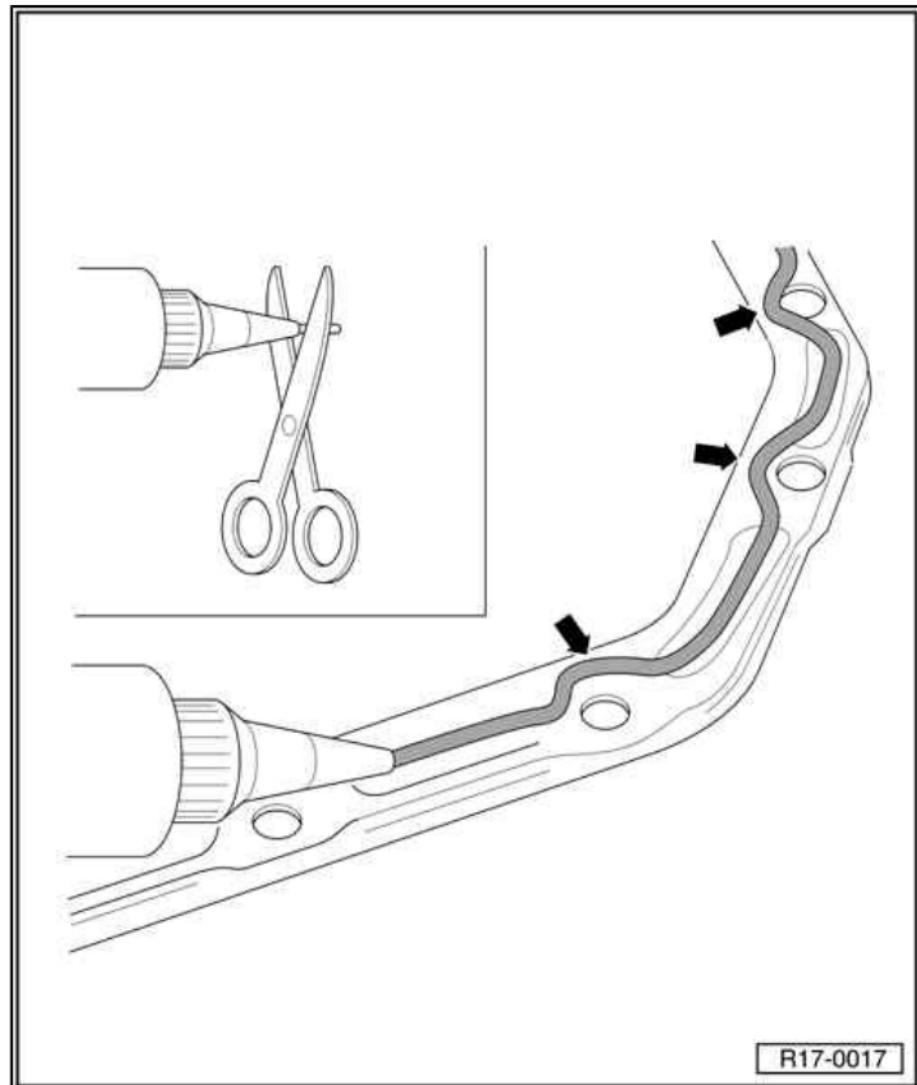
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## 9.3 Engine crankcase - seal

- Engines without solid crankcase gasket
- Product used
- Silicone sealant for engine  
⇒ [page 22](#)



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## 10 Repair Group 19 - Cooling system



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

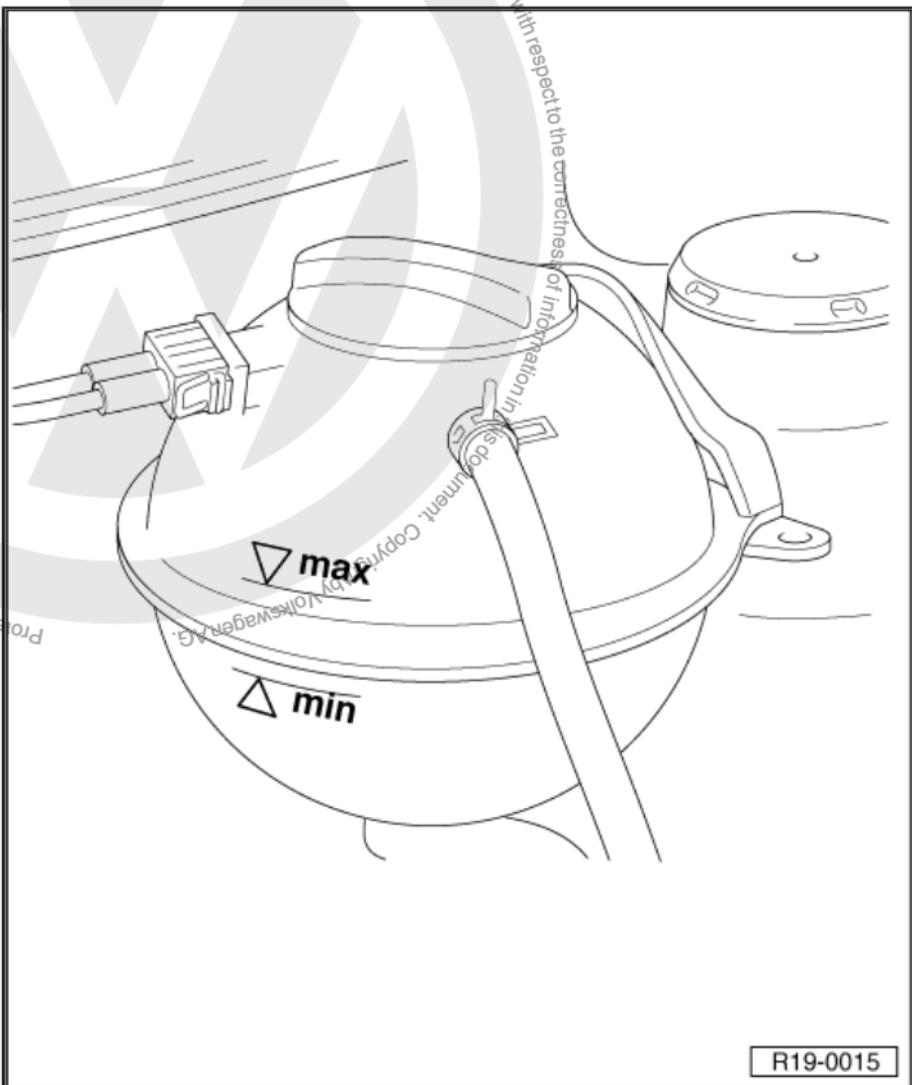
### 10.1 G11 cooling system - fill / adjust additive proportion

- Water-cooled engines

\*For vehicles manufactured up to 05/01/2000

- Product used

- Coolant additive - G11  
⇒ page 7



R19-0015



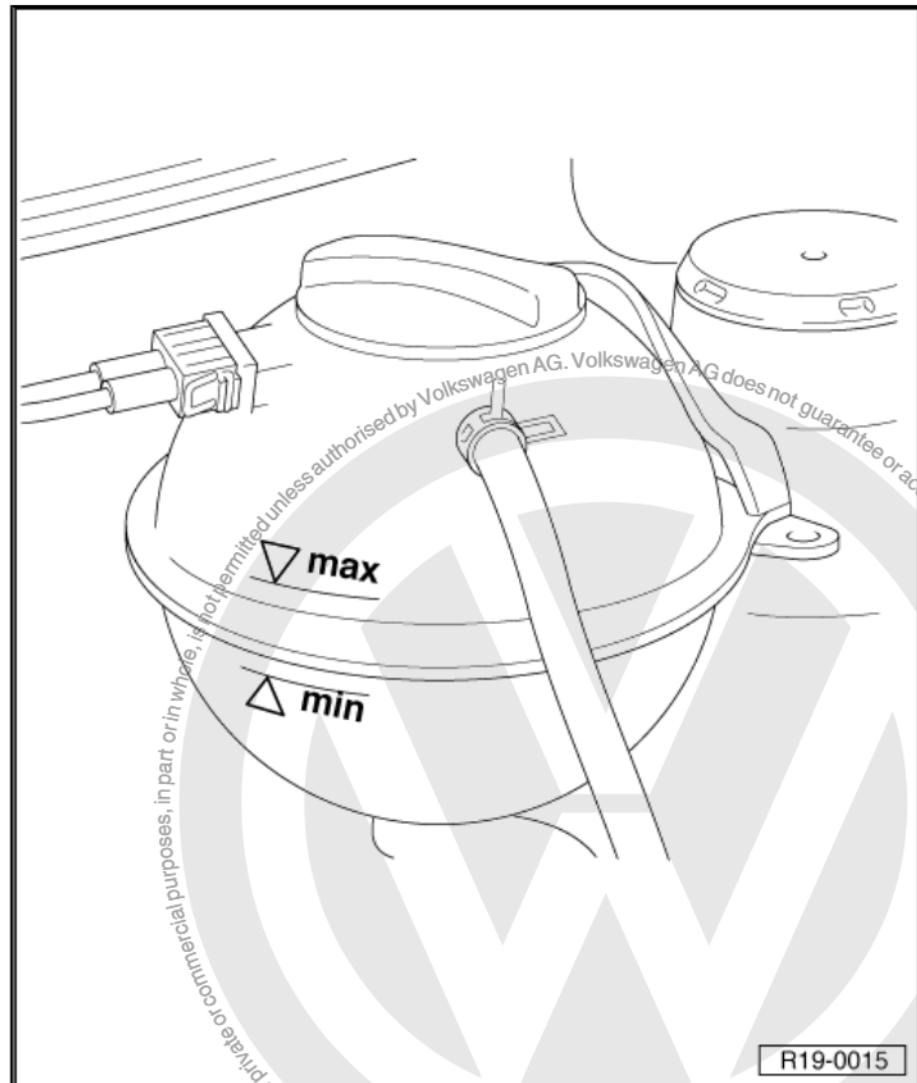
## 10.2 G13 cooling system - fill / adjust additive proportion.

- Water-cooled engines

\*For vehicles manufactured as from 05/02/2000

- Product used

- Coolant additive - G13  
⇒ [page 7](#)





## 11 Repair Group 20 - Supply system - tank, fuel pump



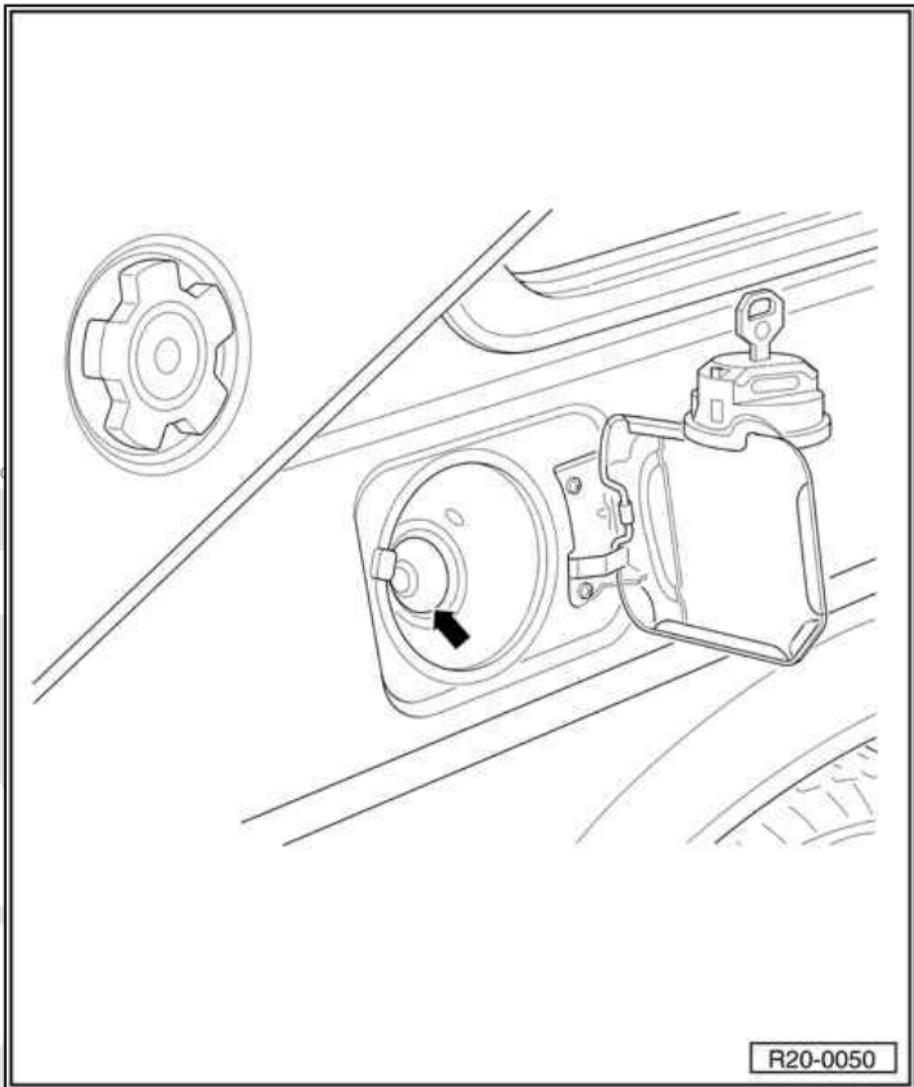
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 11.1 Fuel tank - add additive

- Petrol-only vehicles
- Product used
- Petrol additive [⇒ page 8](#)



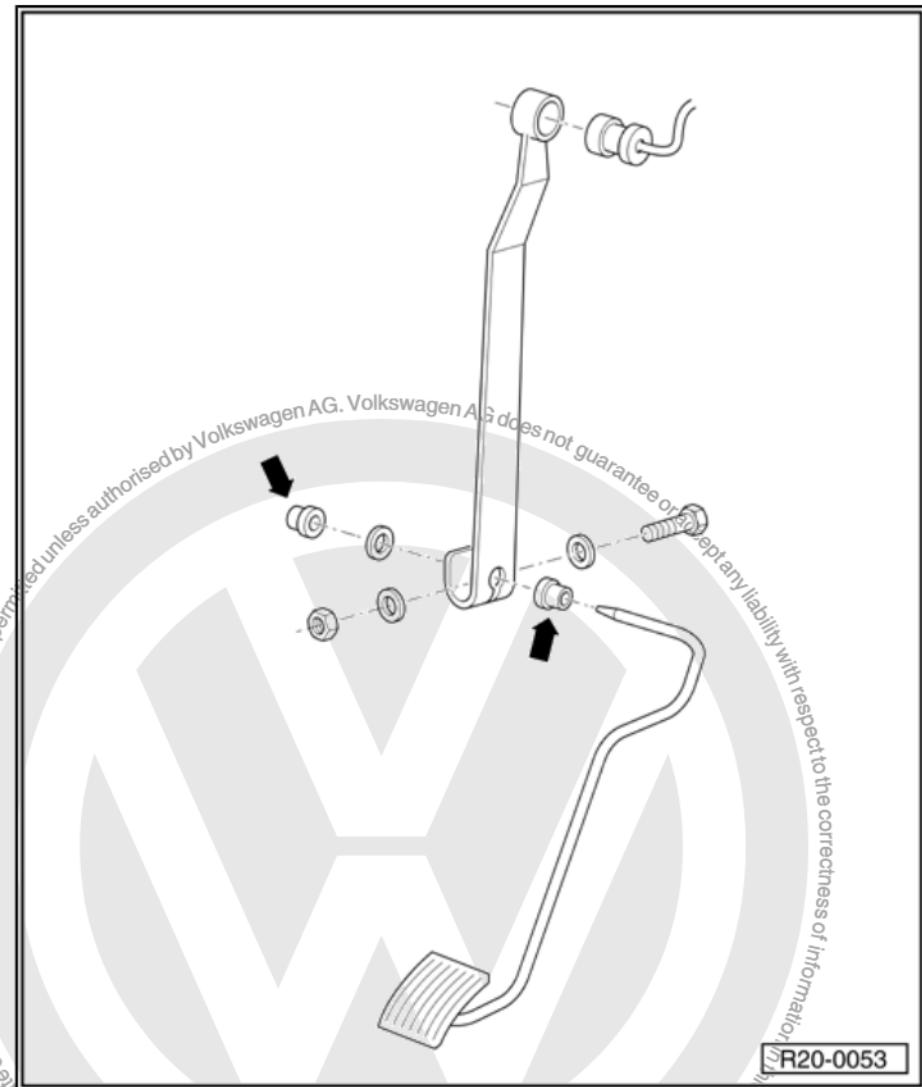


## 11.2 Accelerator pedal shaft - lubricate

- All (except Kombi and E-gas vehicles)

- Product used

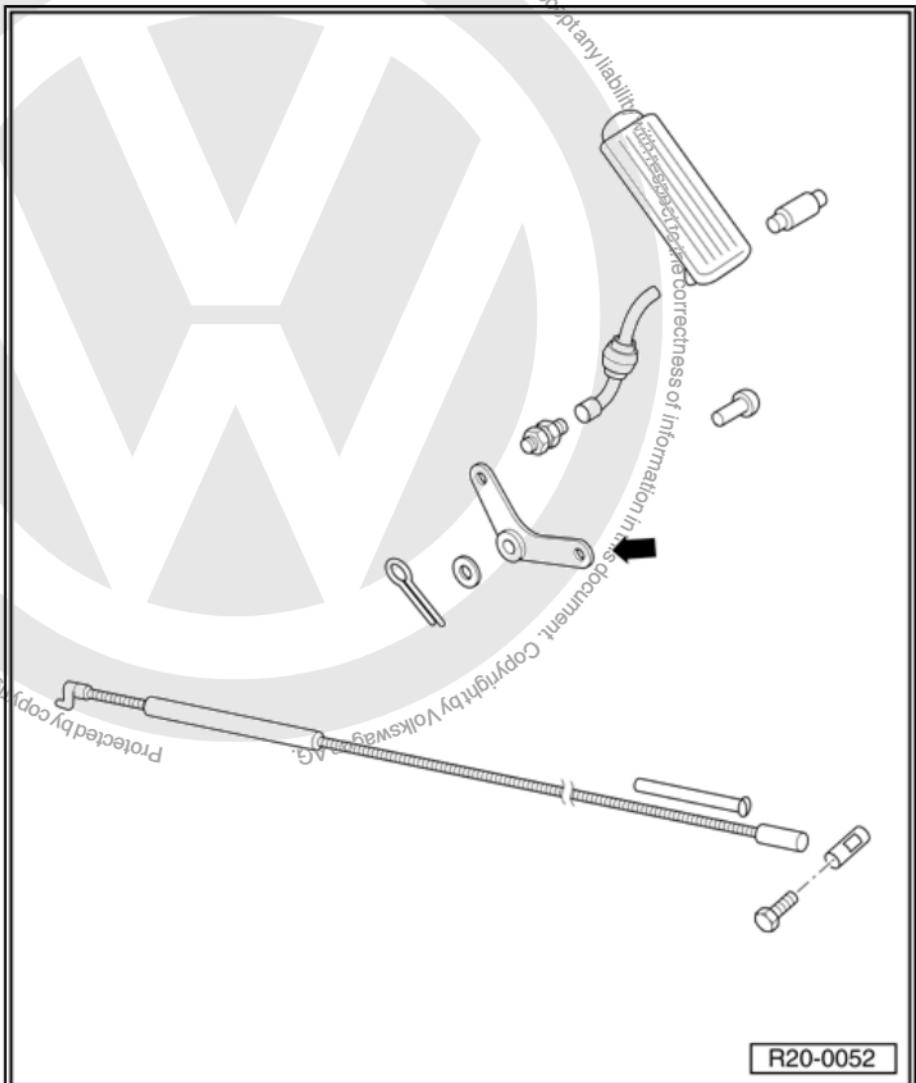
- White lubricating grease  
⇒ [page 20](#)





### 11.3 Accelerator pedal fastening - lubricate

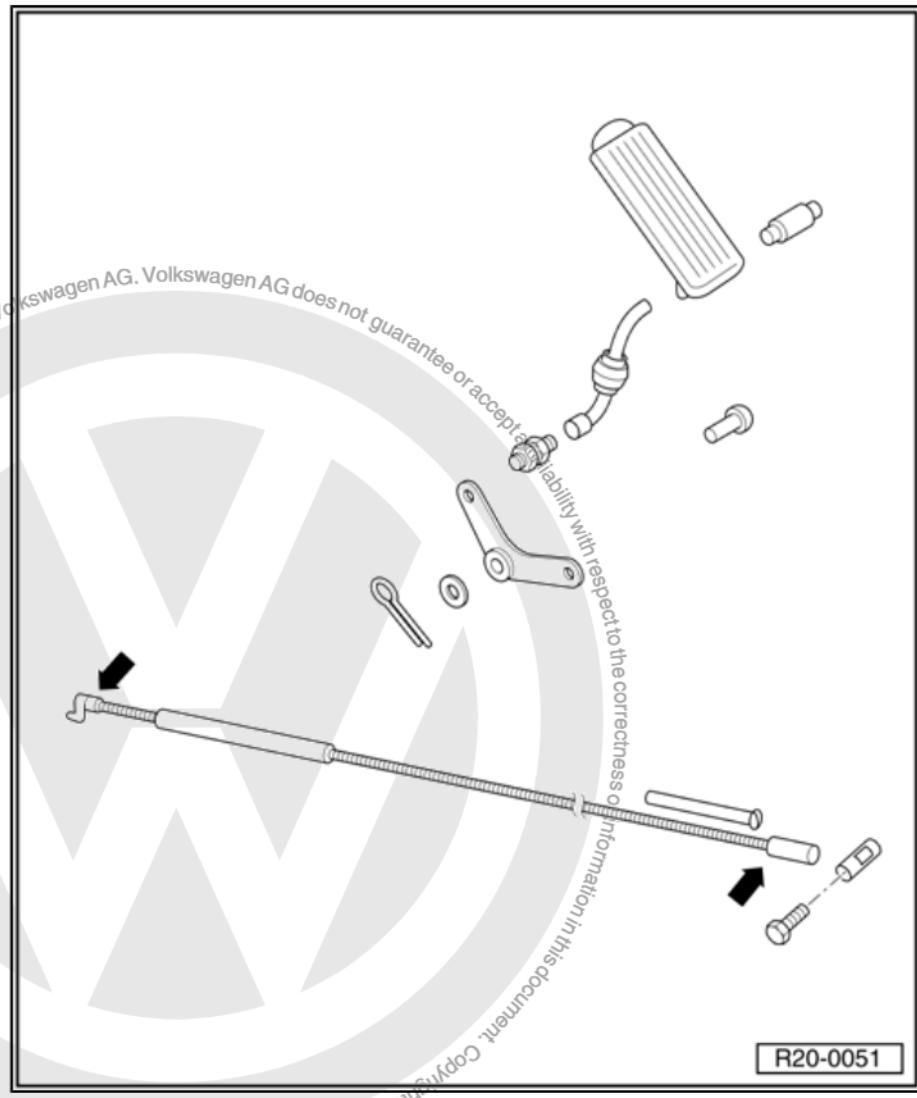
- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)





## 11.4 Accelerator cable and cable end - accelerator pedal fastening - lubricate

- Kombi
- Product used
- Multi-purpose grease  
⇒ [page 9](#)





## 12 Repair Group 26 - Exhaust system



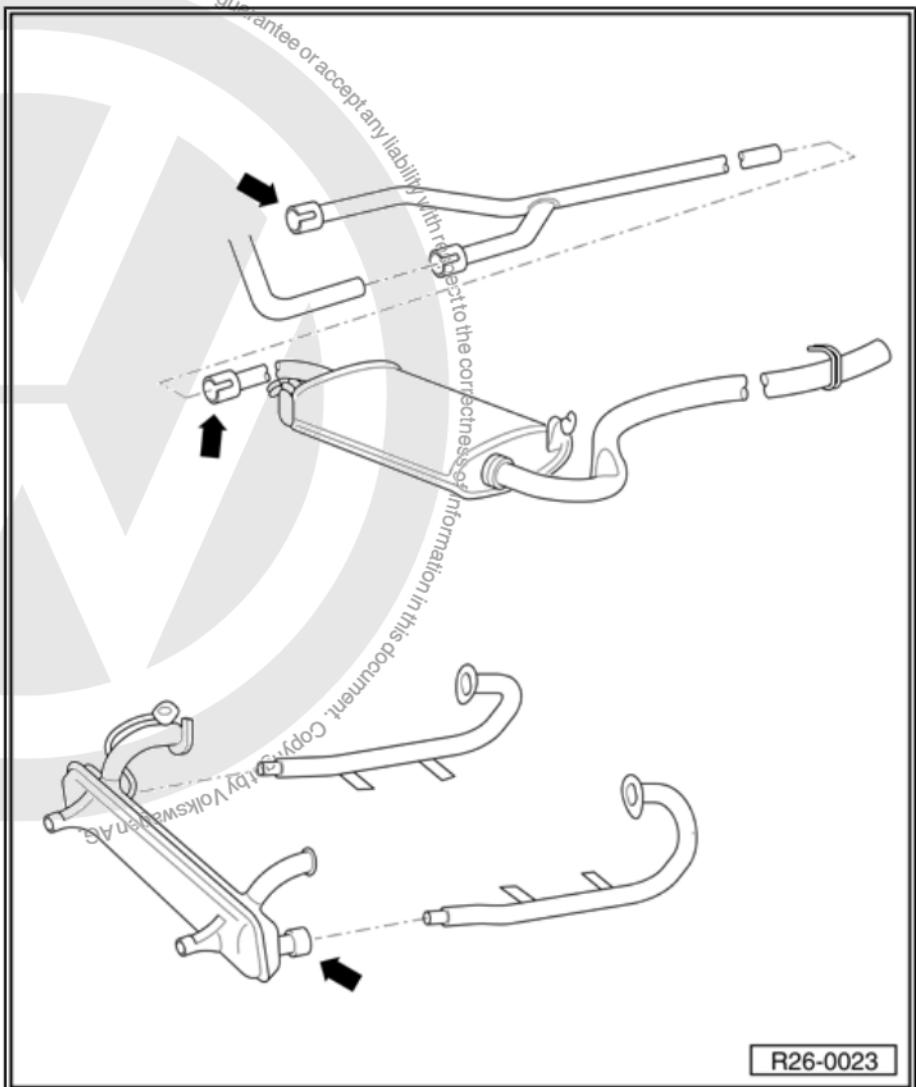
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 12.1 Exhaust connection - seal

- All
- Product used
- Sealant for exhaust connections [=> page 22](#)





## 13 Repair Group - 28 - Ignition system, pre-ignition system



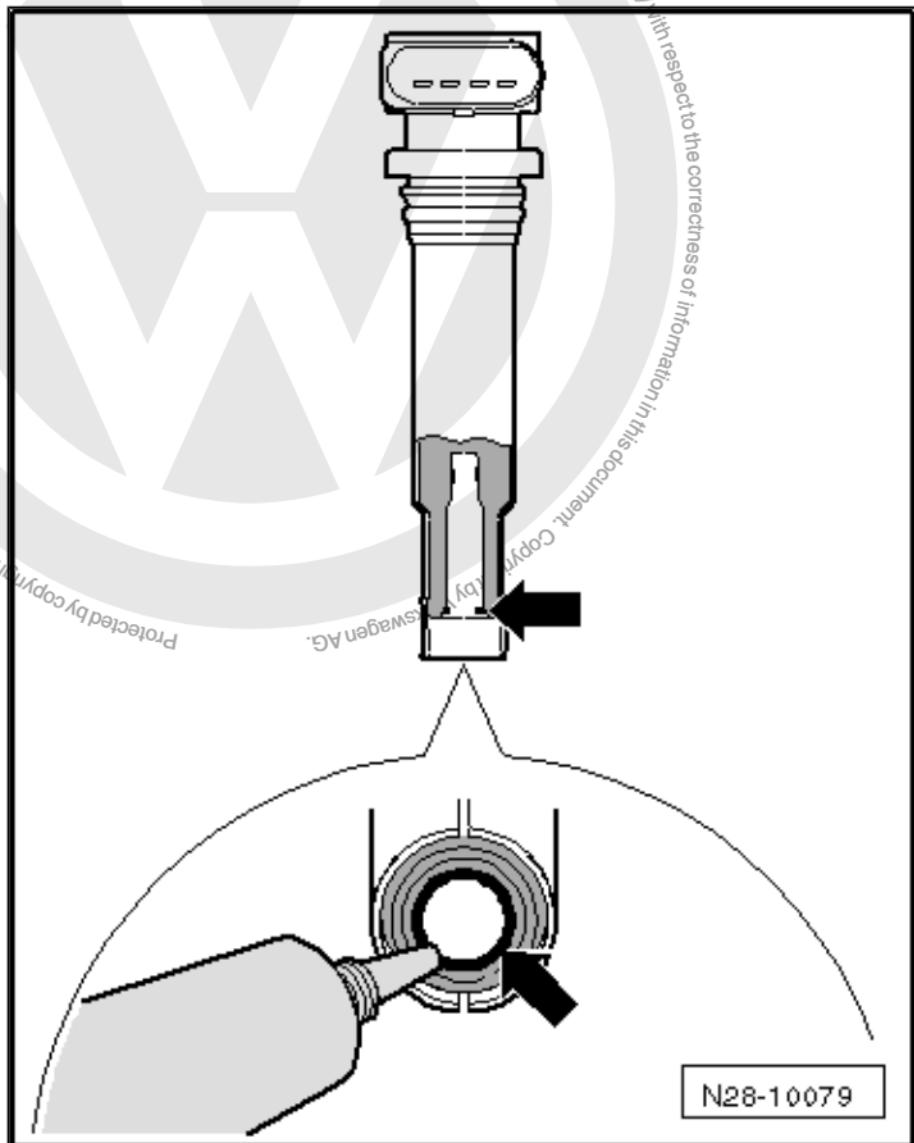
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 13.1 Ignition coils with final power stage - lubricate

- Engines with ignition coils with final power stage
- Product used
- Silicon lubricating grease  
[⇒ page 20](#)





## 14 Repair Group 30 - Clutch - control system



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

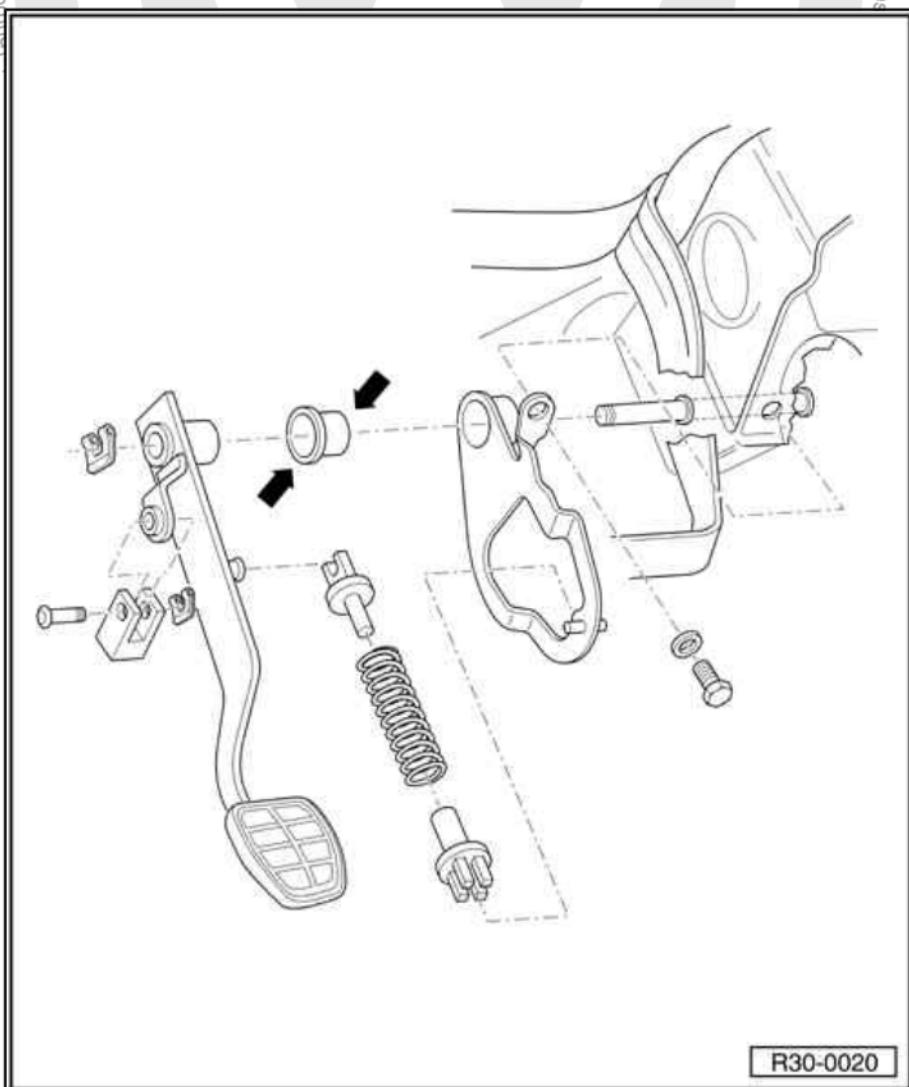
*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 14.1 Clutch pedal bung - lubricate

- Gol GTI 16 V and Parati GTI 16 V

- Product used

- Lubricating paste for constant velocity joints [⇒ page 13](#)





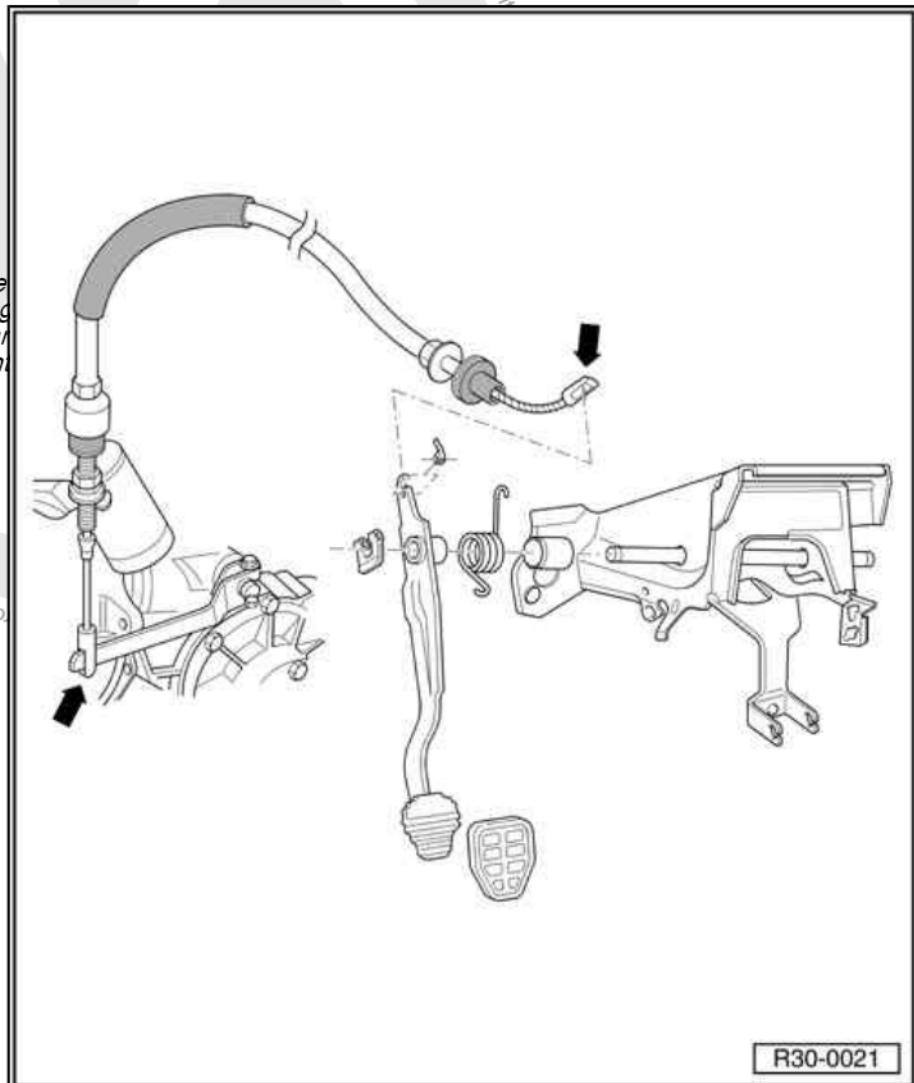
## 14.2 Clutch control cable - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Lubricating paste for constant velocity joints [⇒ page 13](#)



### Note

*Lubrication of the cable  
the clutch lever, in the g  
only valid for 1.6, 1.8 a  
gines manufactured un*



R30-0021



### 14.3 Clutch fork, contact with bearing - lubricate

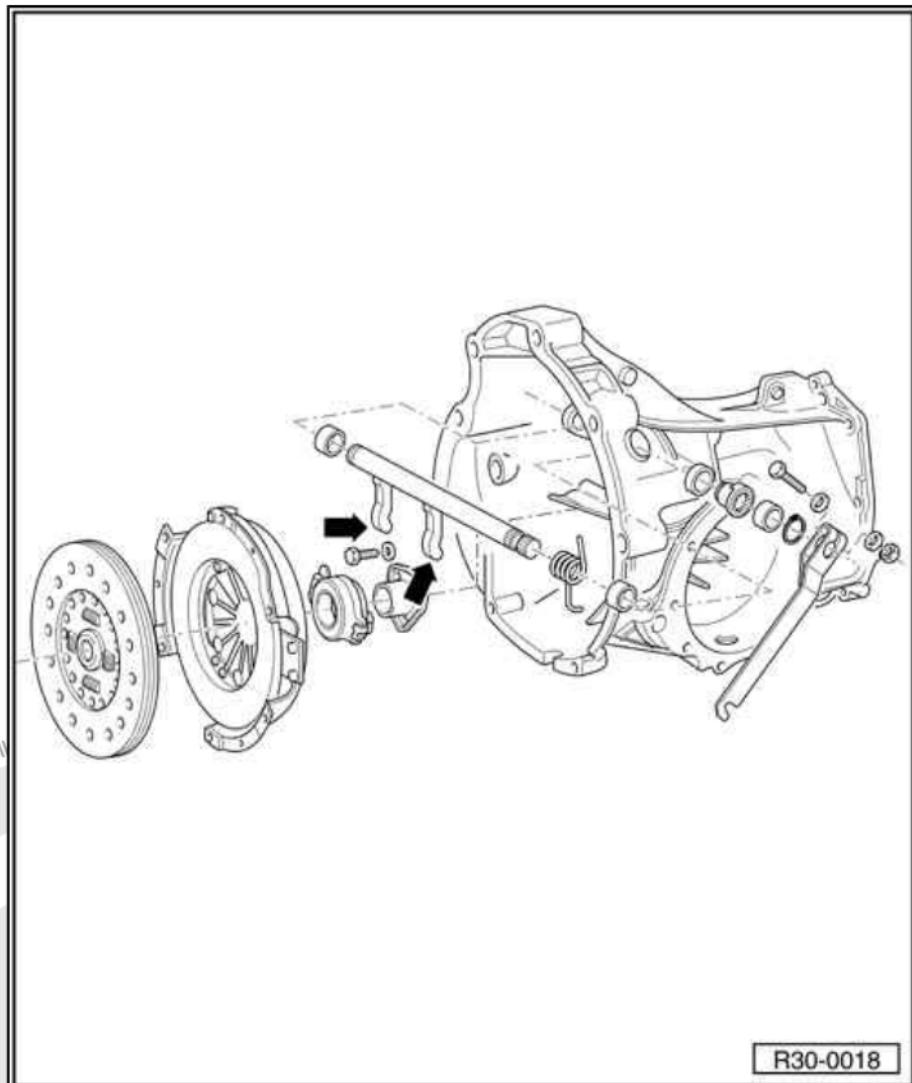
- Gearboxes

013 - 1.0 L

013 - 1.6, 1.8 and 2.0 L

- Product used

- Lubricating paste for constant velocity joints **⇒ page 13**



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## 14.4 Clutch fork bungs - lubricate

- Gearboxes

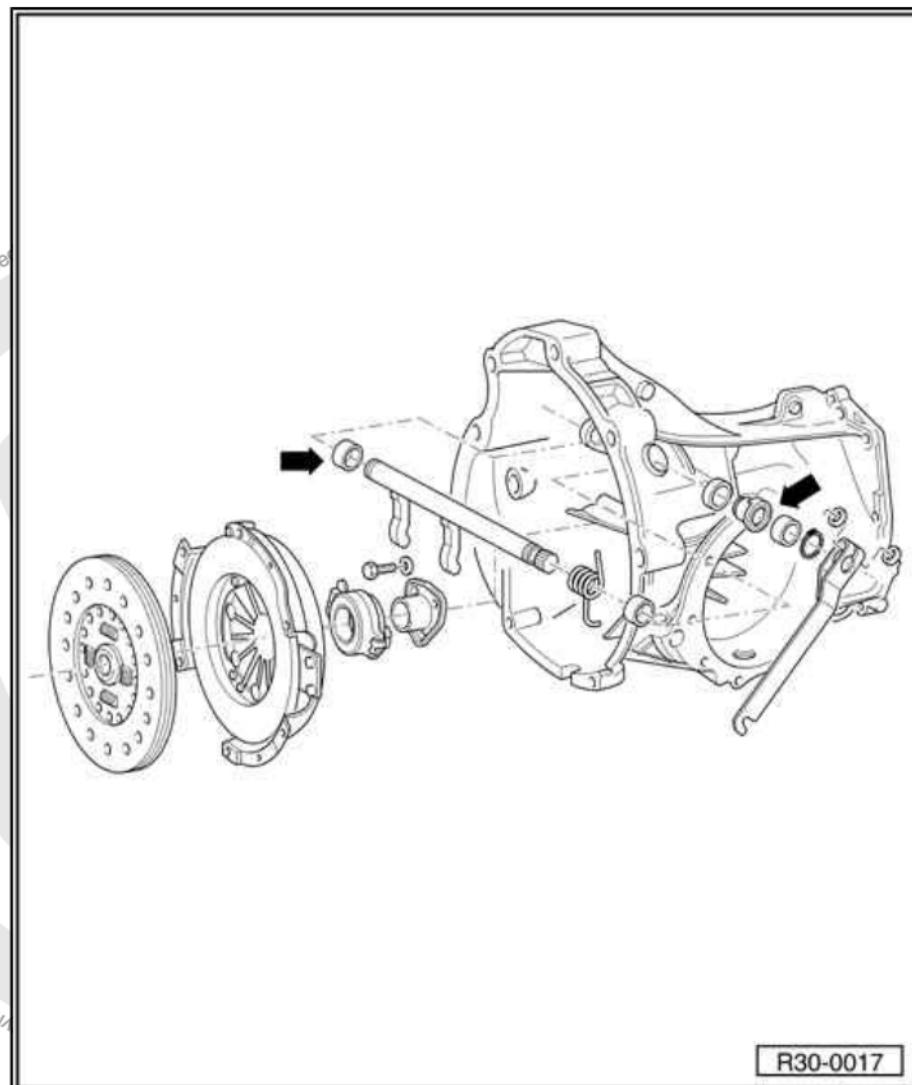
013 - 1.0 L

013 - 1.6 L , 1.8 L and 2.0 L

- Product used

- Lubricating paste for constant velocity joints **⇒ page 13**

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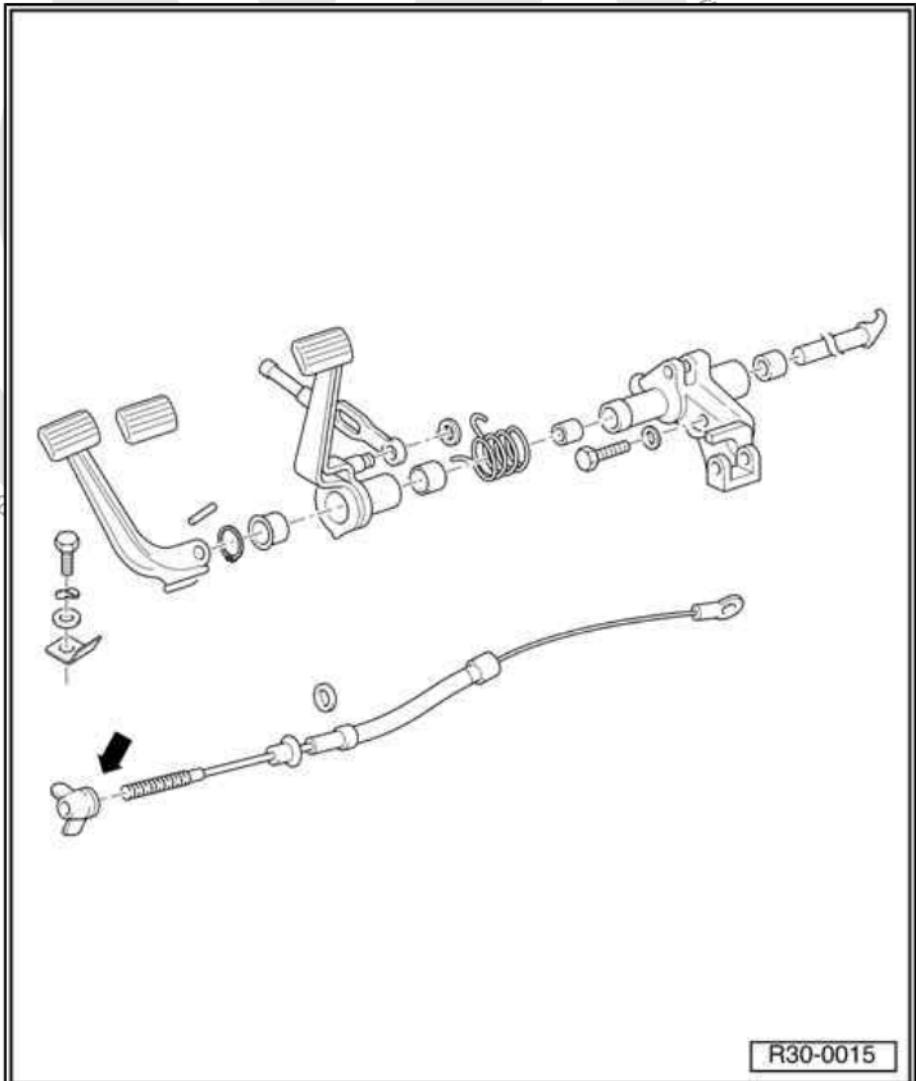
## 14.5 Wing nut for clutch control cable adjustment - lubricate

- Gearbox

081

- Product used

- Multi-purpose grease  
⇒ page 10



R30-0015



## 14.6 Sealing ring for the de-clutch bearing guide - lubricate for assembly

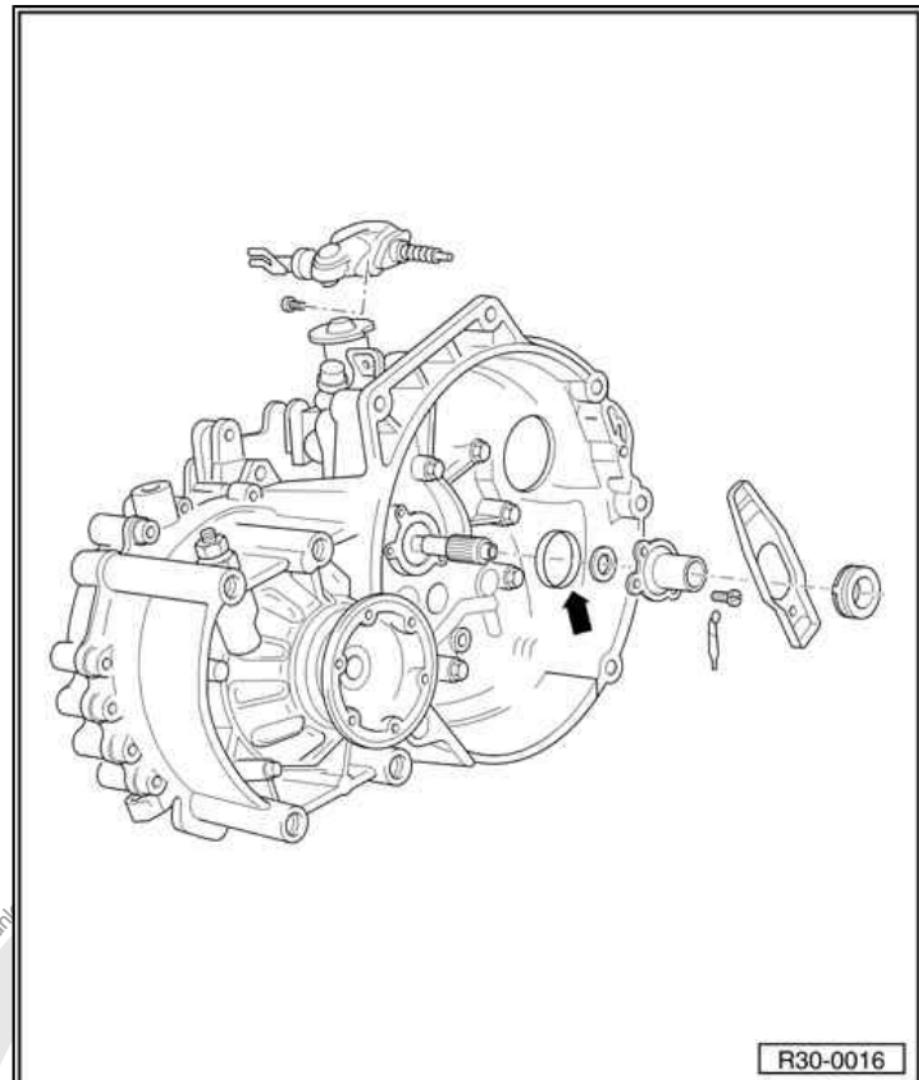
### - Gearboxes

- MQ 200
- MQ 250

### - Product used

- Multi-purpose grease

[⇒ page 10](#)



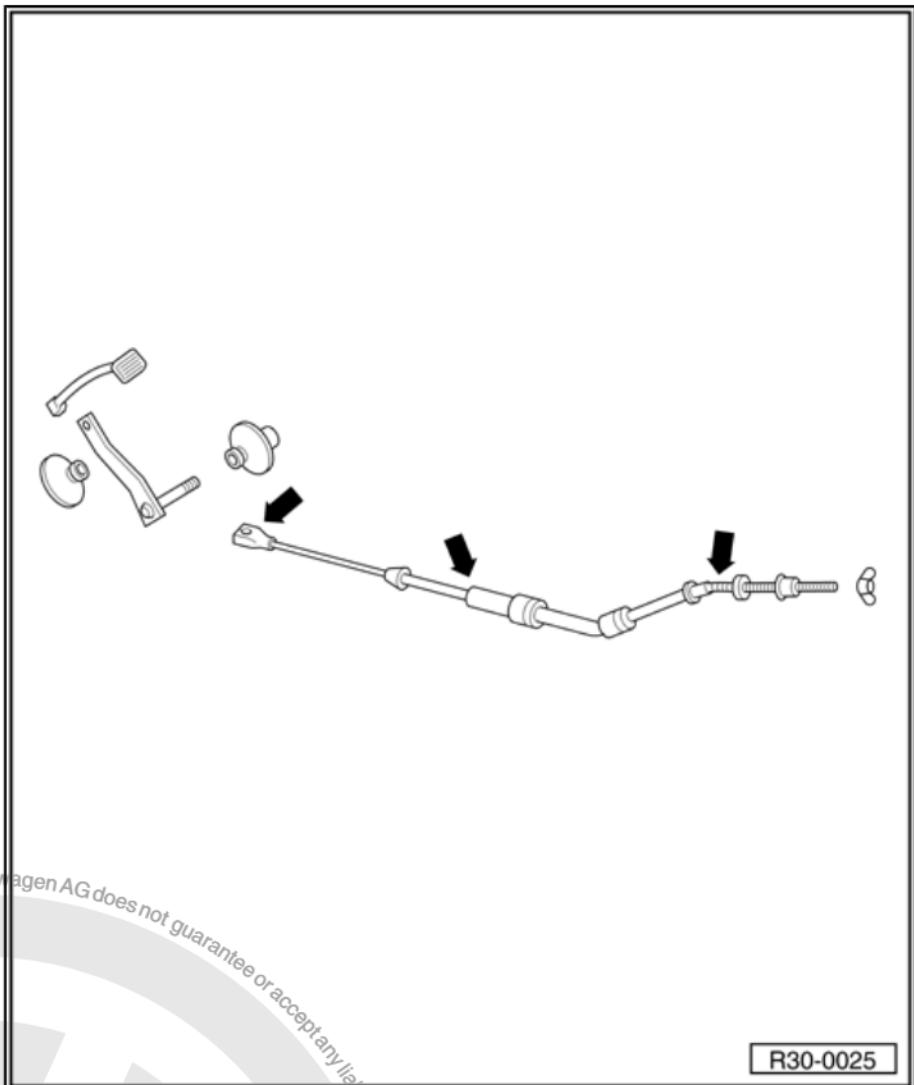
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## 14.7 Clutch cable - lubricate

- Kombi
- Product used
- Multi-purpose grease

[⇒ page 9](#)



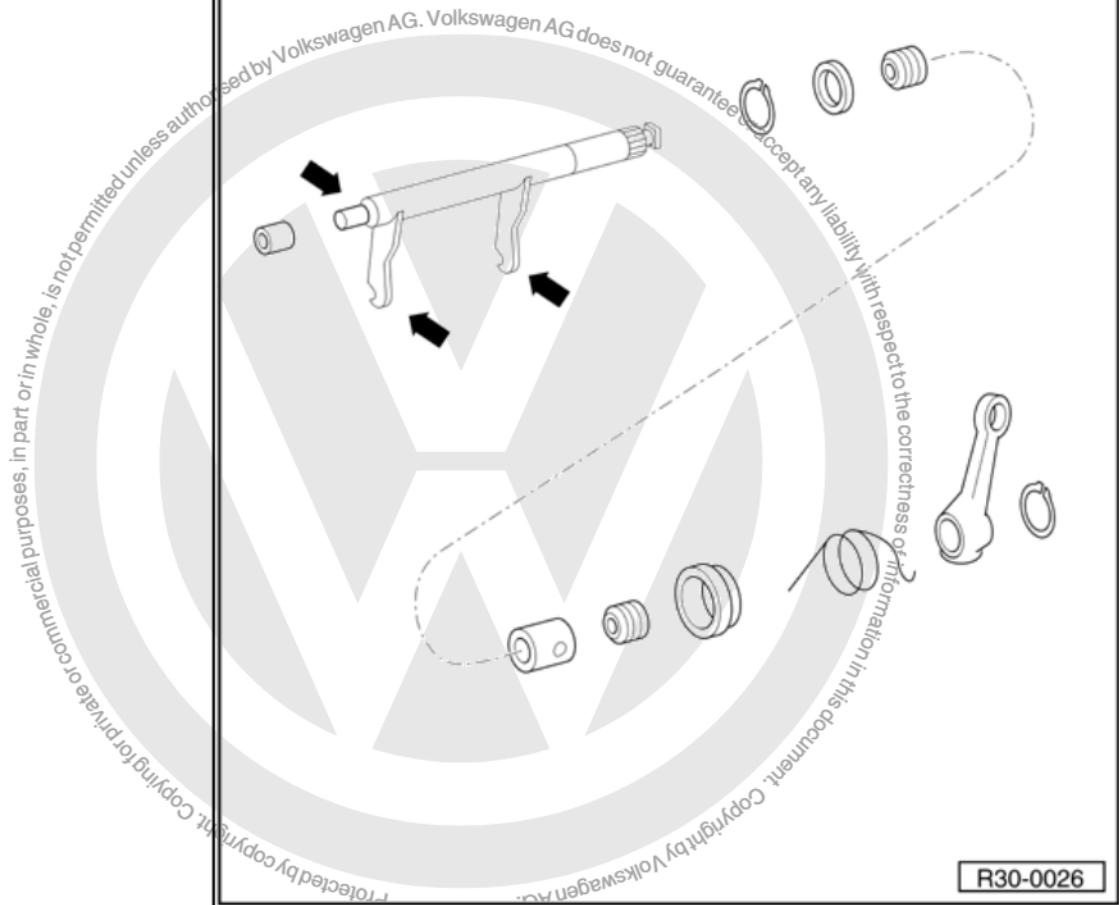
R30-0025

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## 14.8 Clutch fork and clutch actuating lever - lubricate

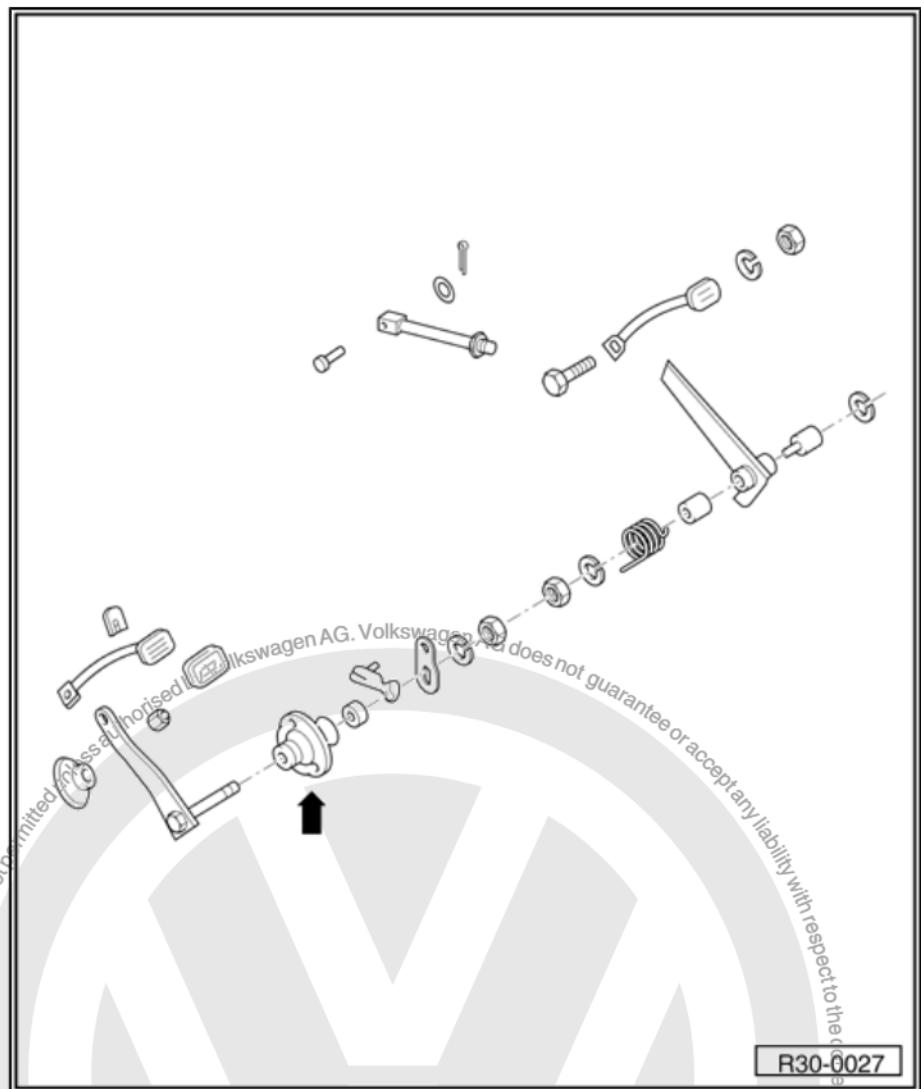
- Gearbox
- 081
- Product used
- Multi-purpose grease  
⇒ page 9





## 14.9 Clutch pedal fastening - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)



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R30-0027



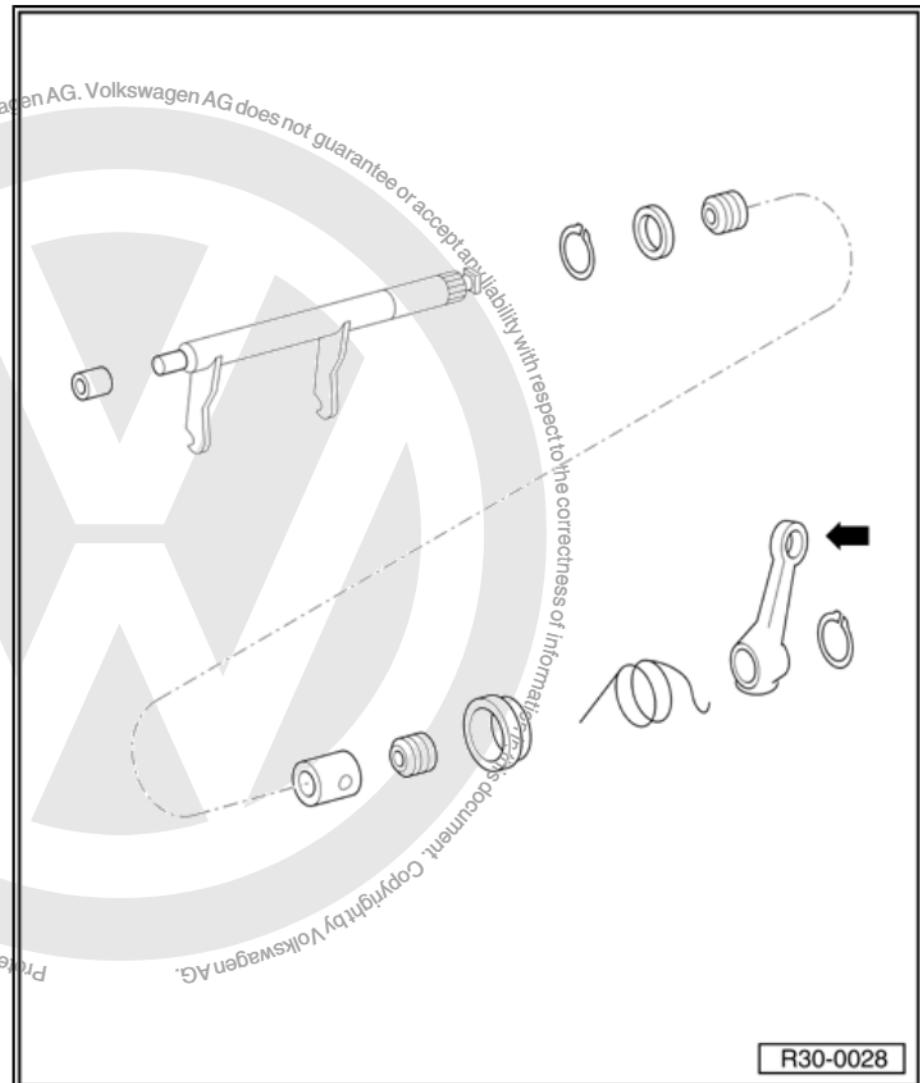
## 14.10 Clutch actuating lever - lubricate

- Gearbox - 081

- Product used

- Multi-purpose grease

[≥ page 9](#)





## 14.11 Input shaft splines - lubricate

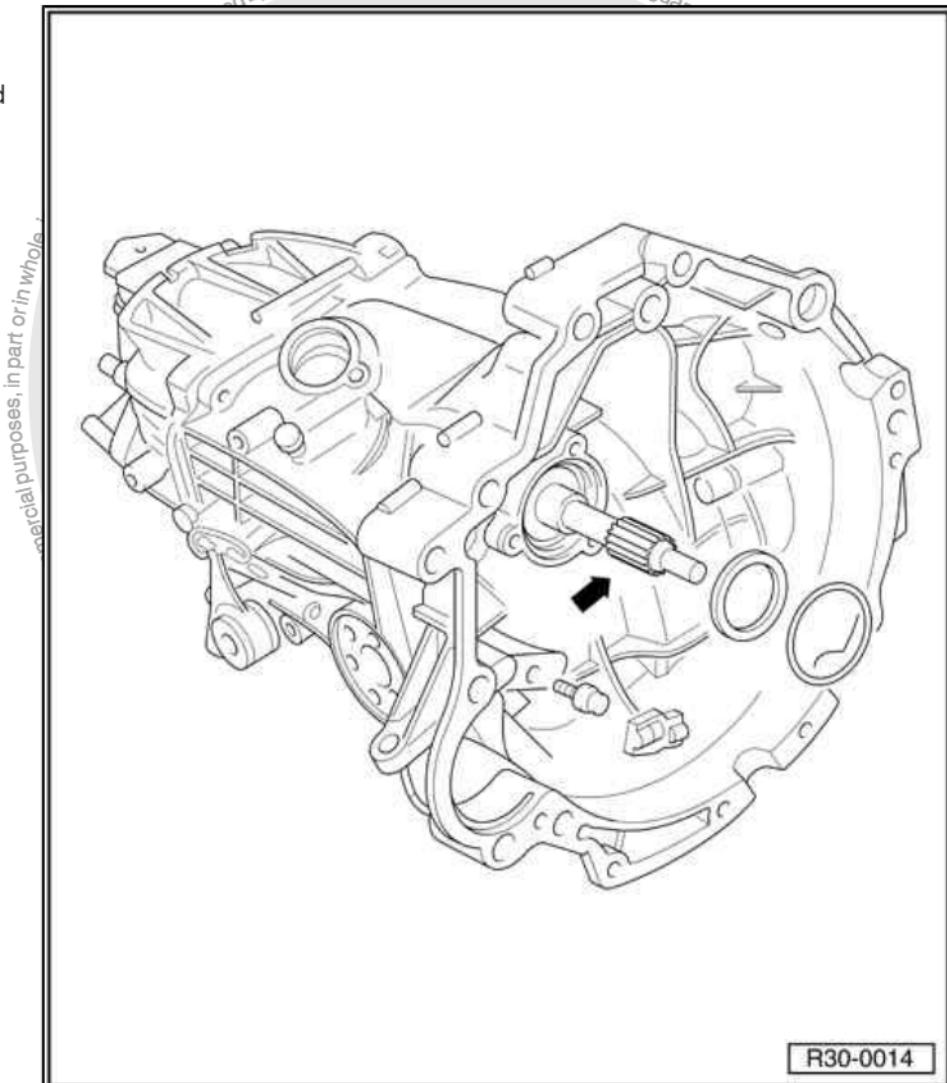
### - Gearboxes

- 013 - 1.0 L
- 013 - 1.6 L , 1.8 L and 2.0 L

### - Product used

- Multi-purpose grease

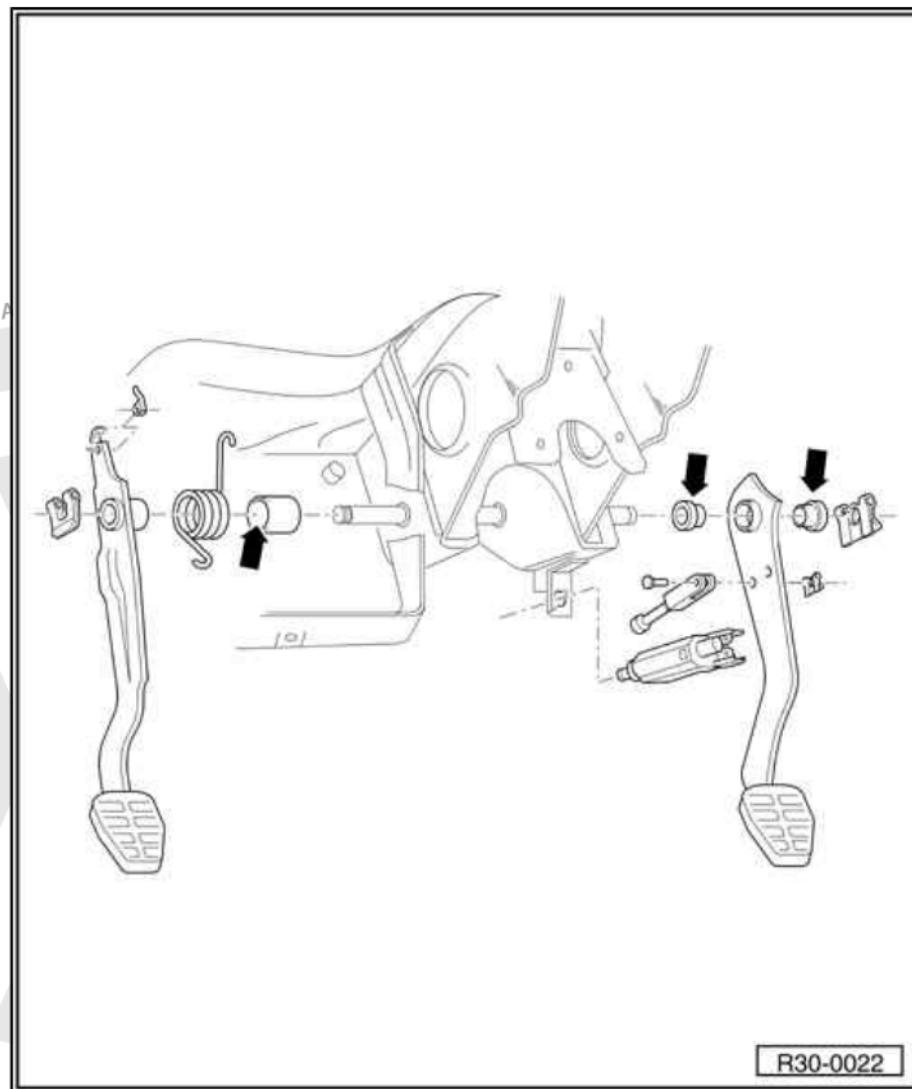
[⇒ page 9](#)





## 14.12 Clutch pedal / clutch pedal bung - lubricate

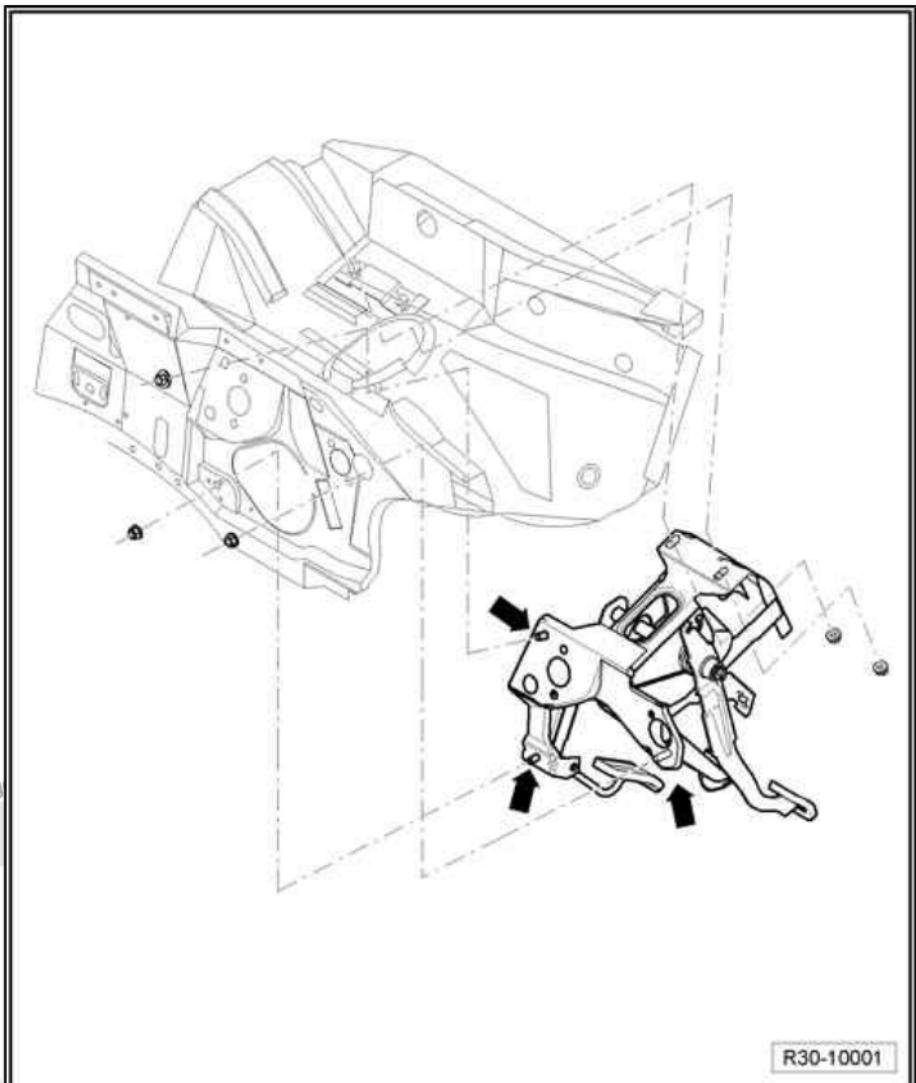
- All (except Kombi)
- Product used
- White lubricating grease  
⇒ [page 20](#)





## 14.13 Pedal support - seal

- Product used
- Sealing compound  
[⇒ page 13](#)
- 7X0 898 539-



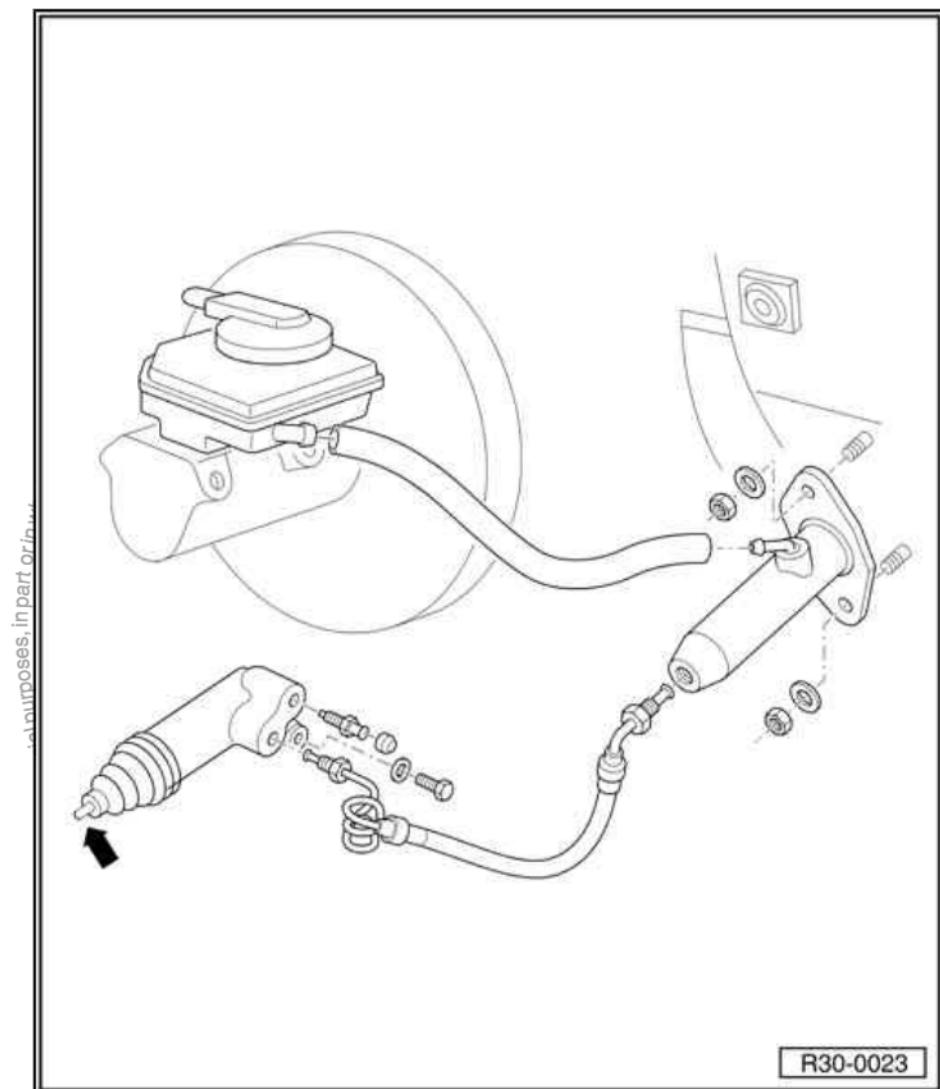
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14.14 Clutch fork contact with the hydraulically activated cylinder of the gearbox clutch - lubricate

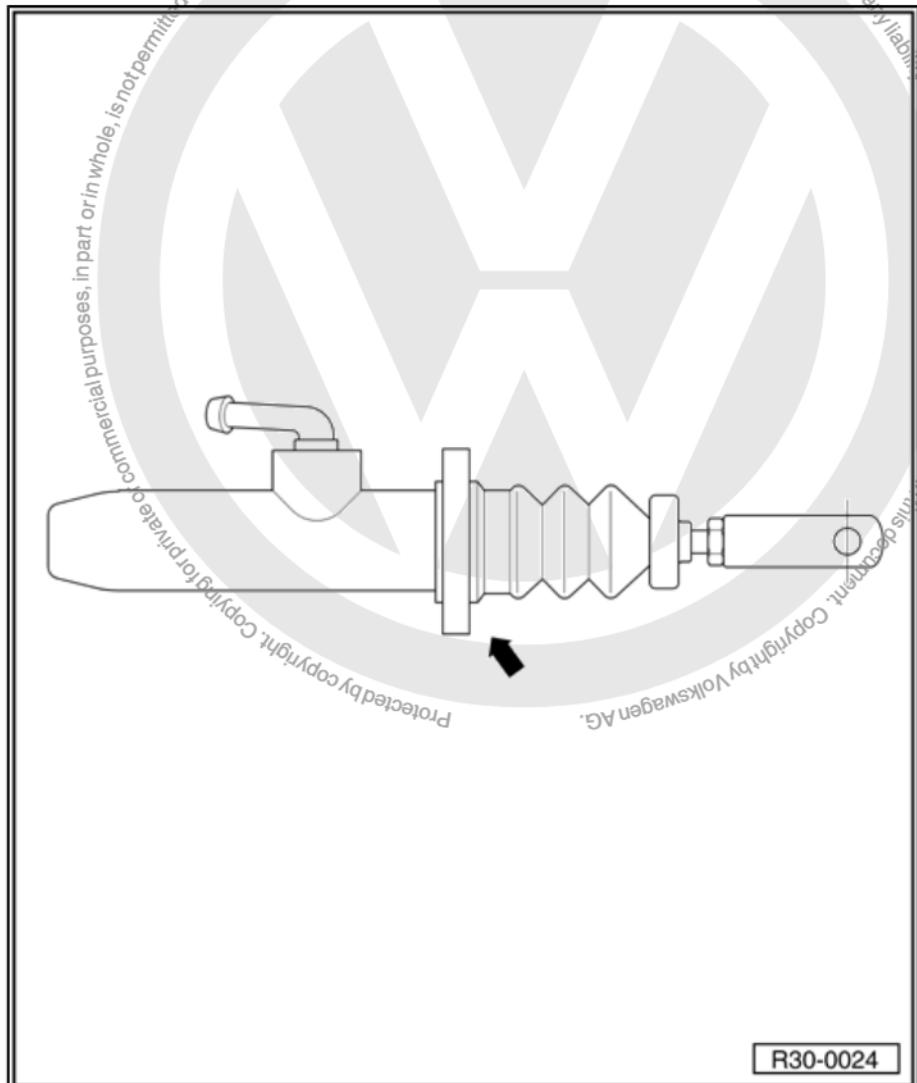
- Gearbox -
- Product used
- Copper grease [⇒ page 20](#)





## 14.15 Fastening flange for clutch slave cylinder - seal

- Gearbox - **⇒ Item (page 74)**
- Product used
- Sealing compound



R30-0024



## 15 Repair Group - 34 - Drive, housing



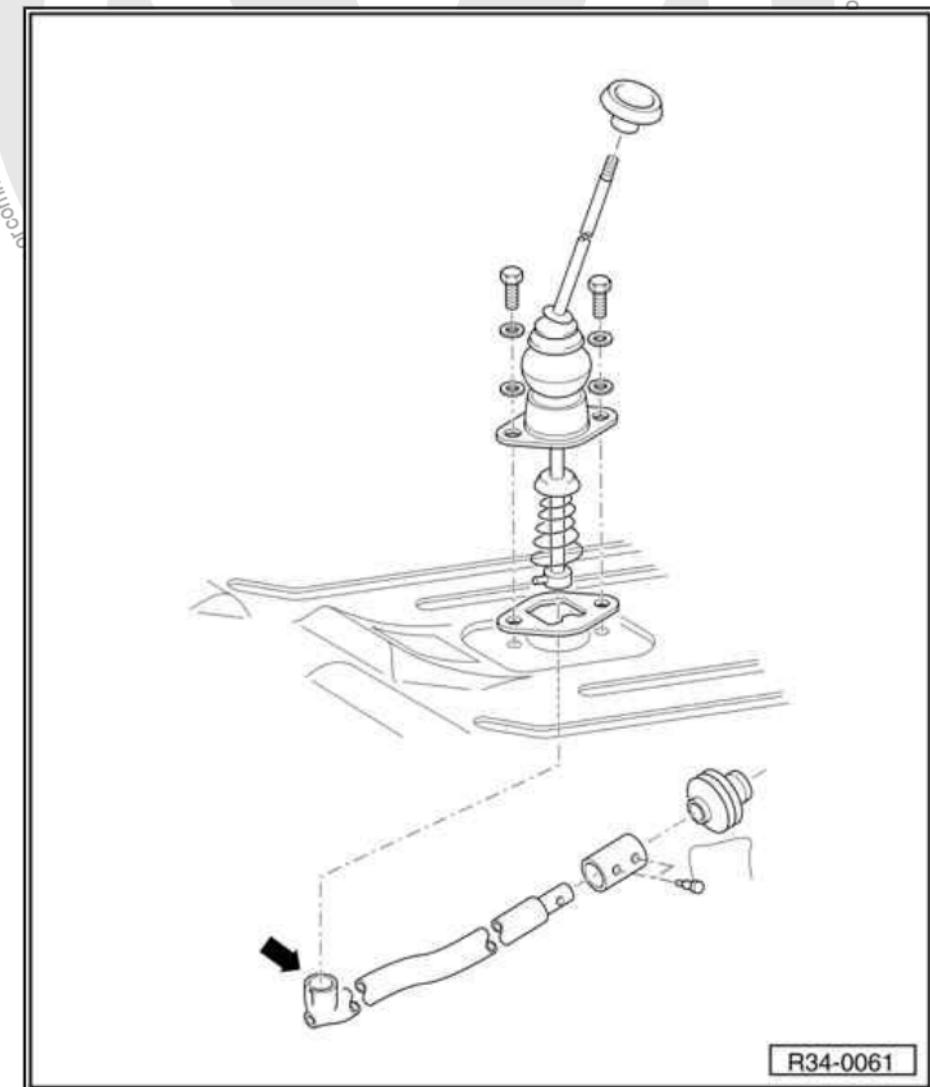
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 15.1 Linkage rod, front/rear section - lubricate

- Kombi
- Product used
- Multi-purpose grease  
⇒ page 10



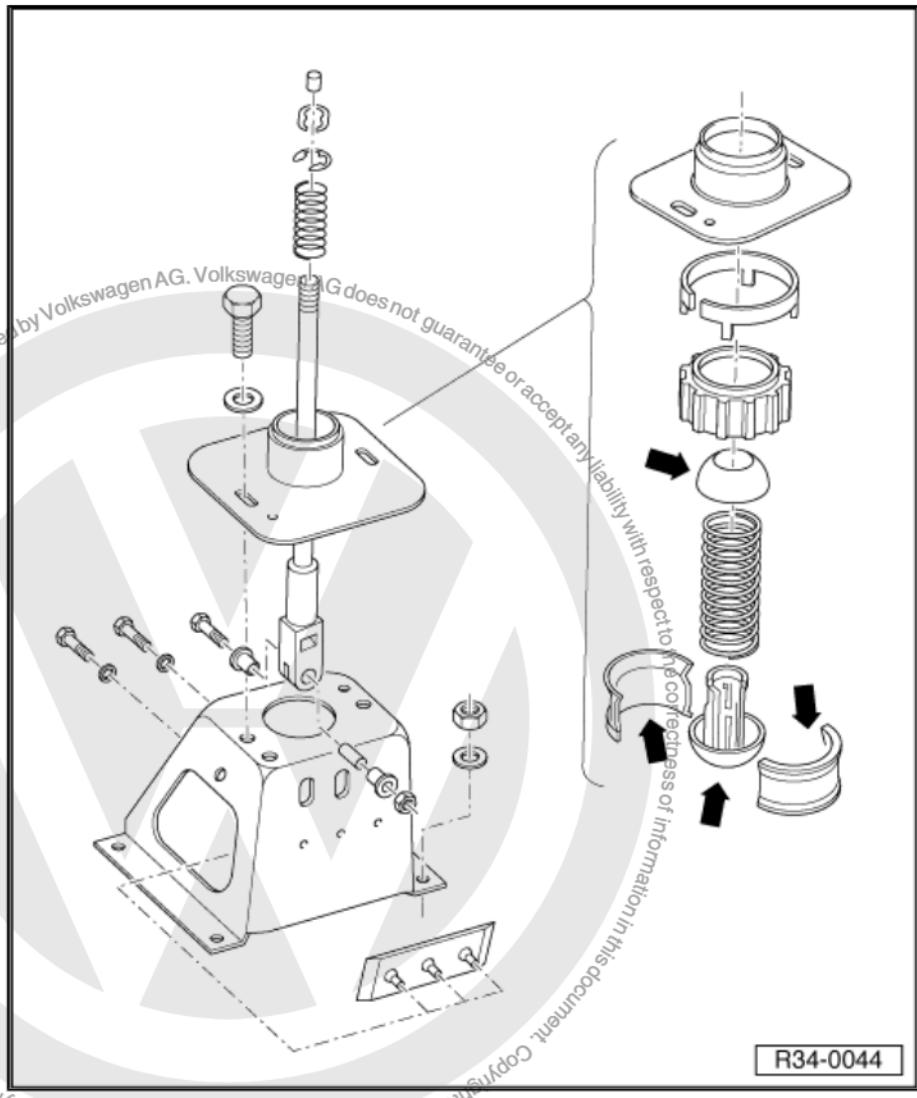


## 15.2 Gear lever bearing

- Gol, Parati, Saveiro and Santana

- Product used

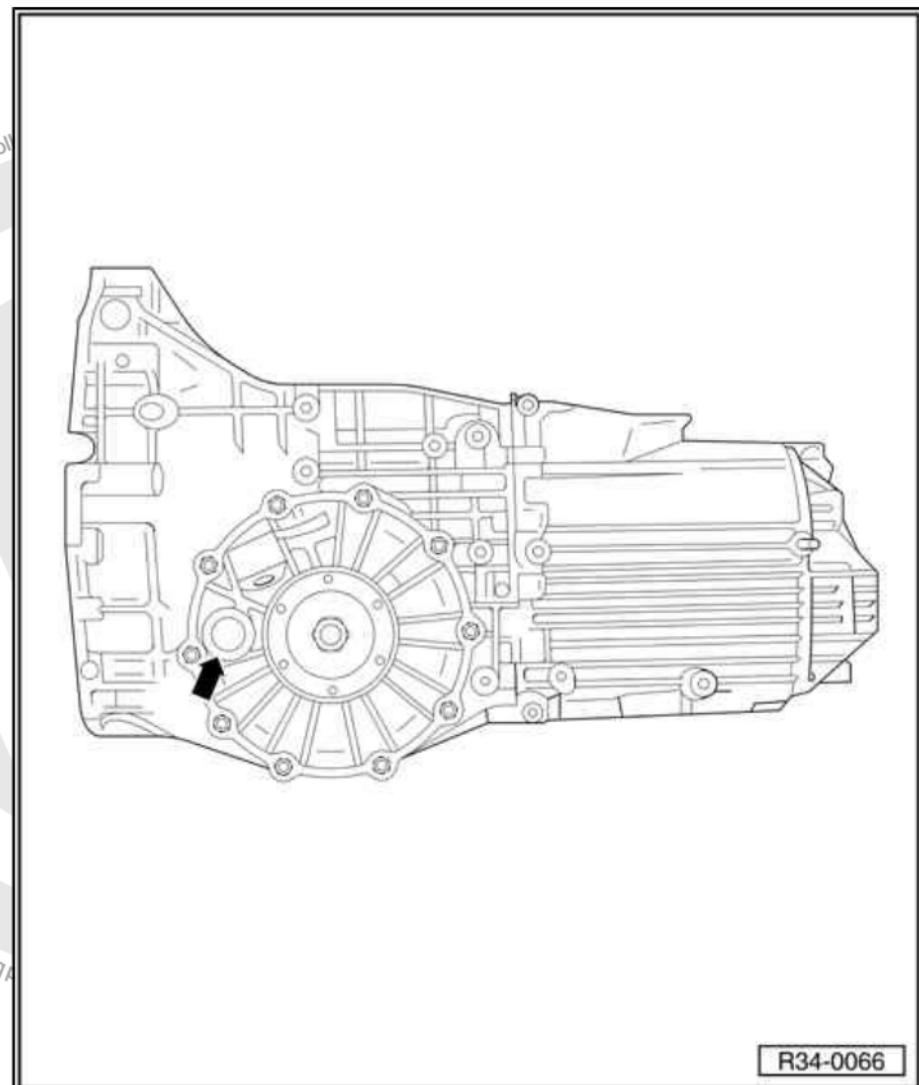
- Special lubrication grease  
[⇒ page 10](#)





## 15.3 Manual Gearbox - fill / top up level

- Gearbox -
- Product used
- Manual gearbox oil - SAE 75W90
- ◆ -G 052 911 A2- - 1.0 liter





## 15.4 Manual gearbox - Fill / top up level

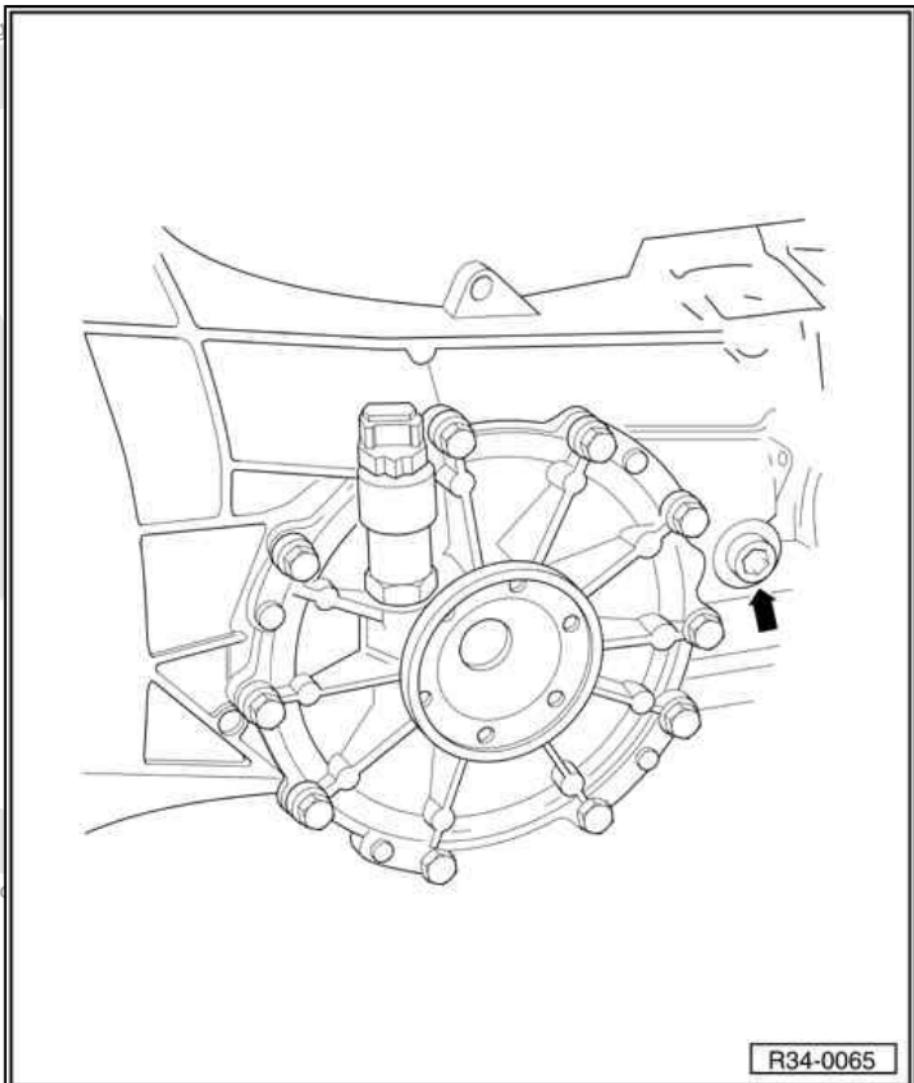
### - Gearboxes 013

- For engines: 1.0 L, 1.6 L, 1.8 L, 1.9 L and 2.0 L (EA 827)

### - Product used

- Oil for manual gearbox - SAE 80, MIL-L-2105 API-GL4

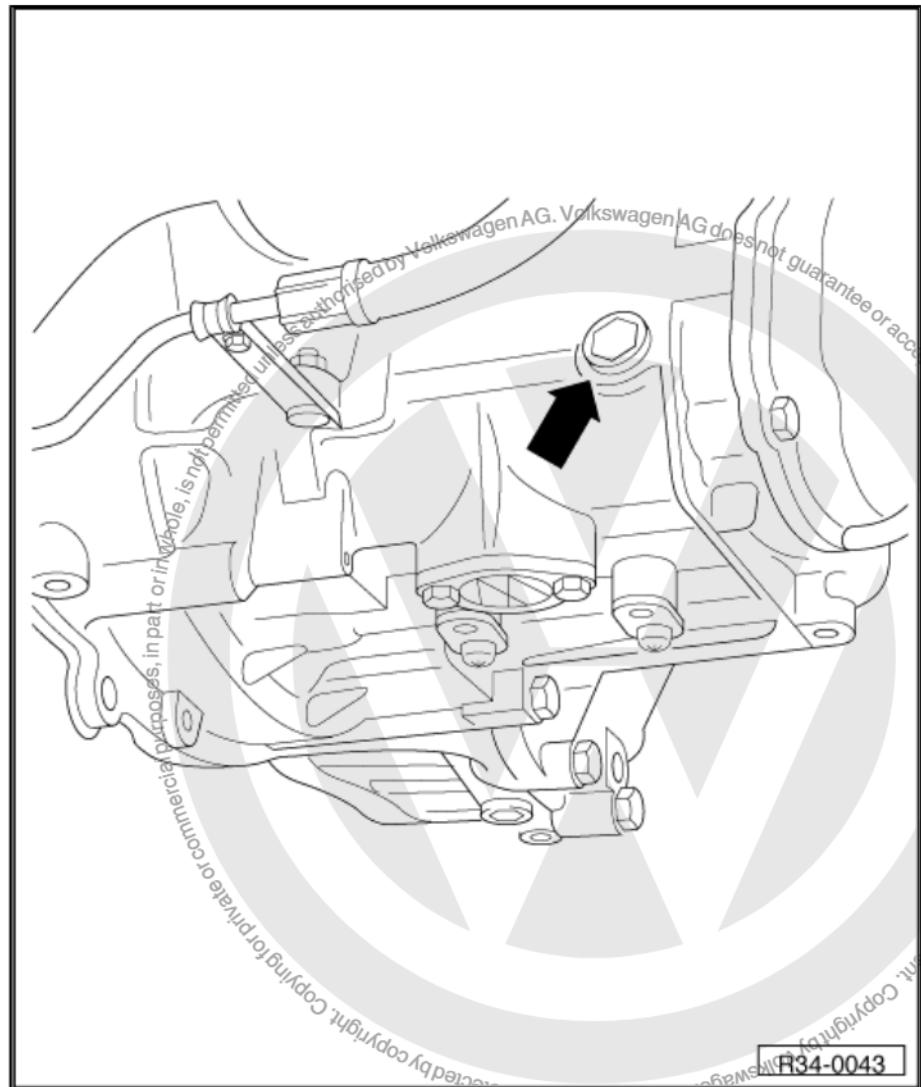
⇒ page 17





## 15.5 Manual Gearbox - fill / top up level

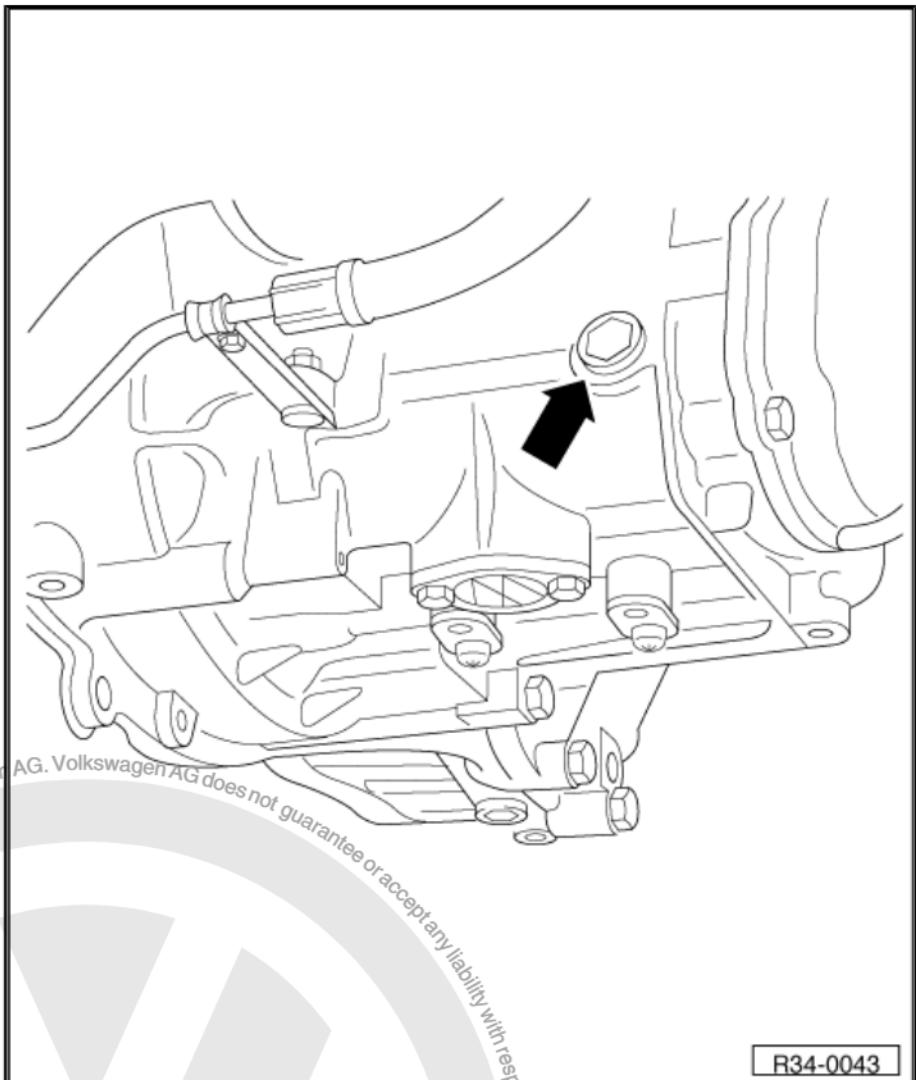
- Gearbox - MQ 250
- Product used
- Manual gearbox oil - SAE 75W90 [page 18](#)
- ◆ -G 005 100 A1- - 1 liter
- ◆ -G 052 512 A2- - 1 liter





## 15.6 Manual Gearbox - fill / top up level

- Gearbox - MQ 200
- Product used
- Manual gearbox oil - SAE 75W90 ⇒ page 19
- ◆ -G 052 512 A2- - 1 liter

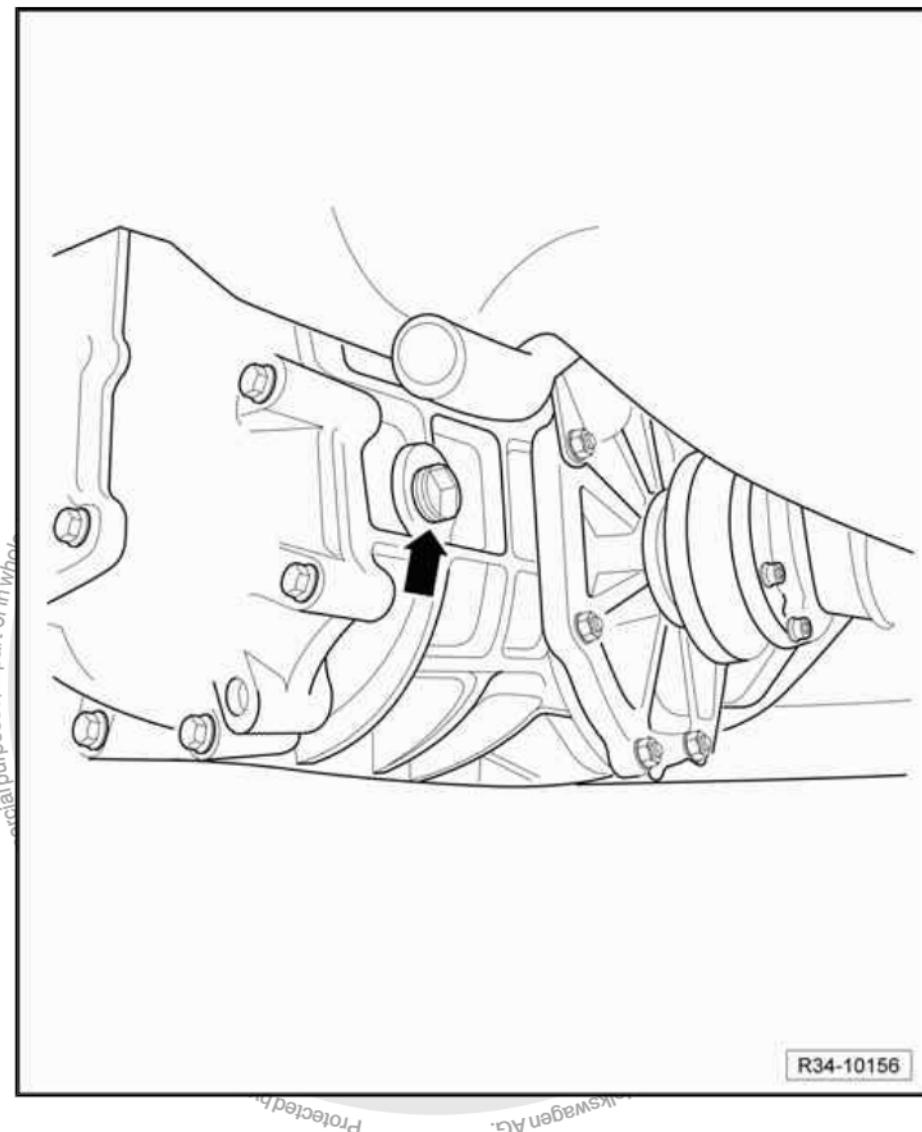


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## 15.7 Manual Gearbox - fill / top up level

- Gearbox - 081 - Kombi
- Product used
- Lubricating oil for manual gearbox and steering box - SAE 90, MIL-L-2105B, API-GL5 [⇒ page 17](#)



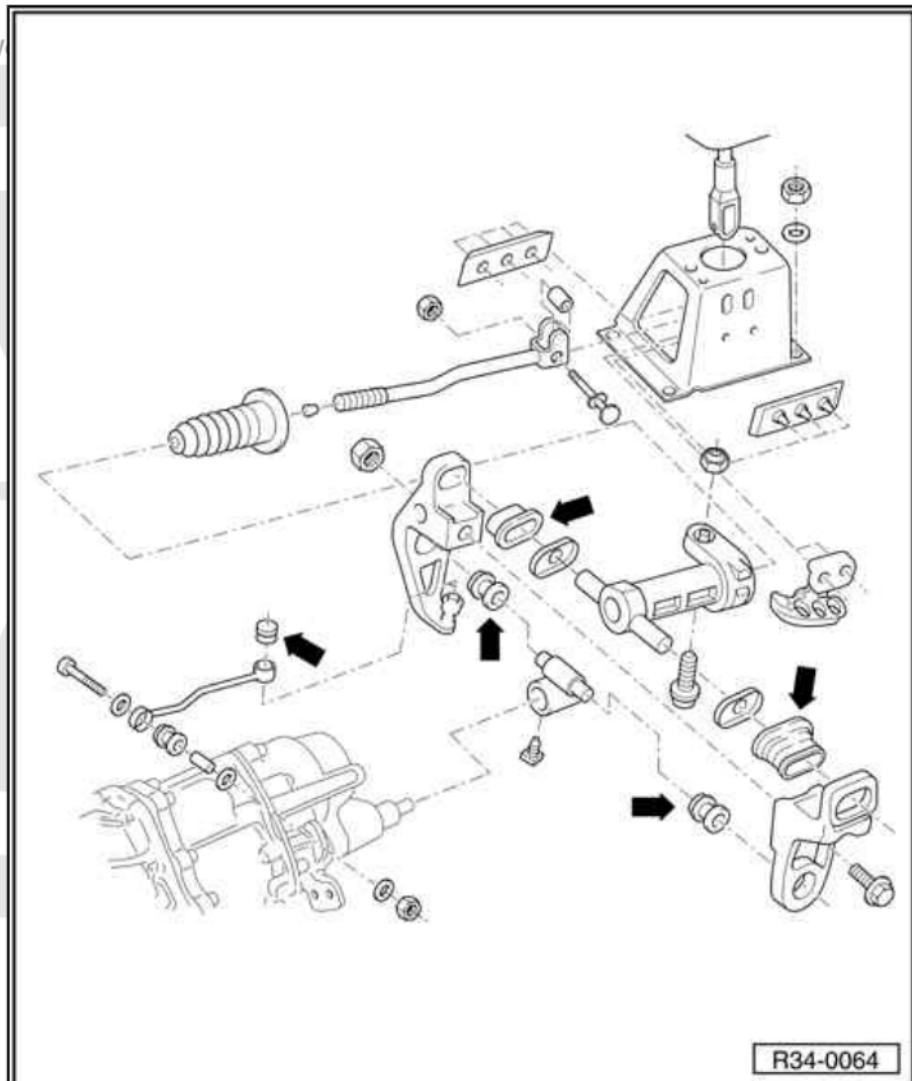


## 15.8 Plastic sleeves for the linkage rod coupling system / linkage rod / supports (on the gearbox) - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Molybdenum bisulphate lubricating grease ⇒ page 20



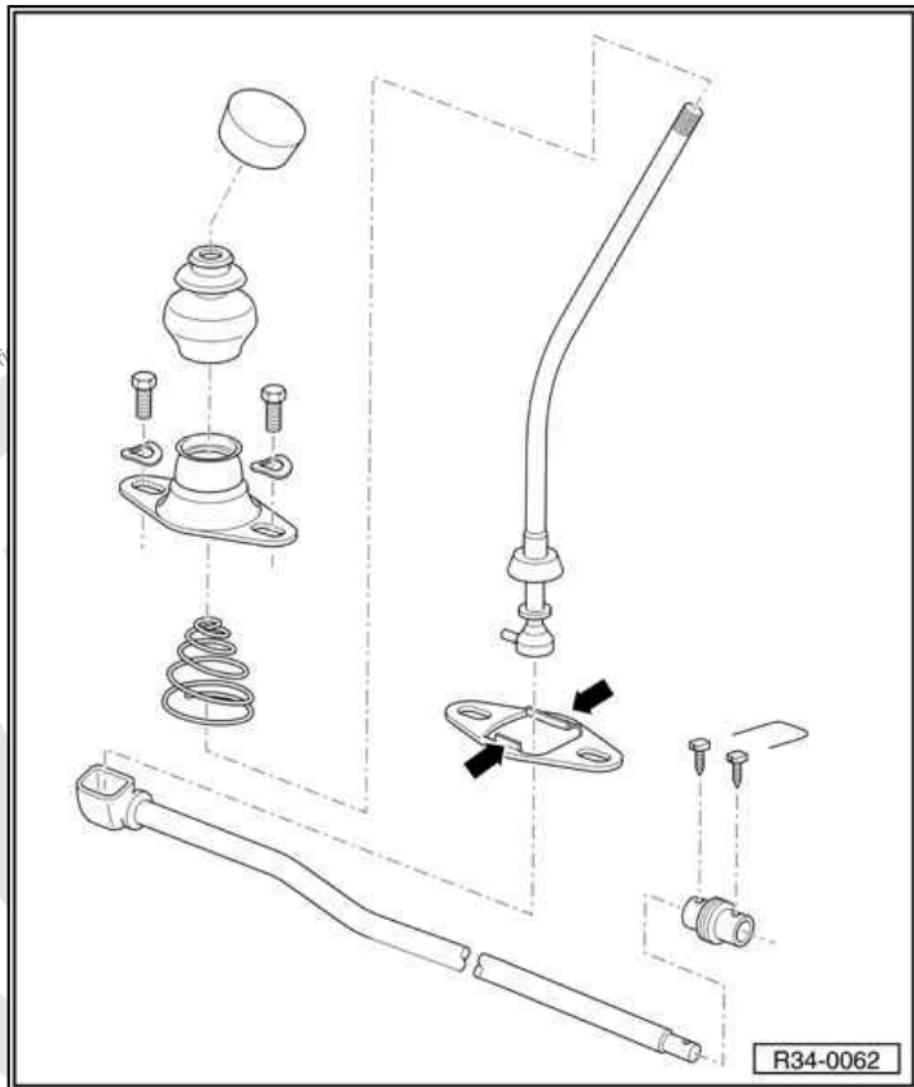


## 15.9 Gear lever guide plate - lubricate

- Kombi

- Product used

- Lubricating paste for constant velocity joints [⇒ page 13](#)



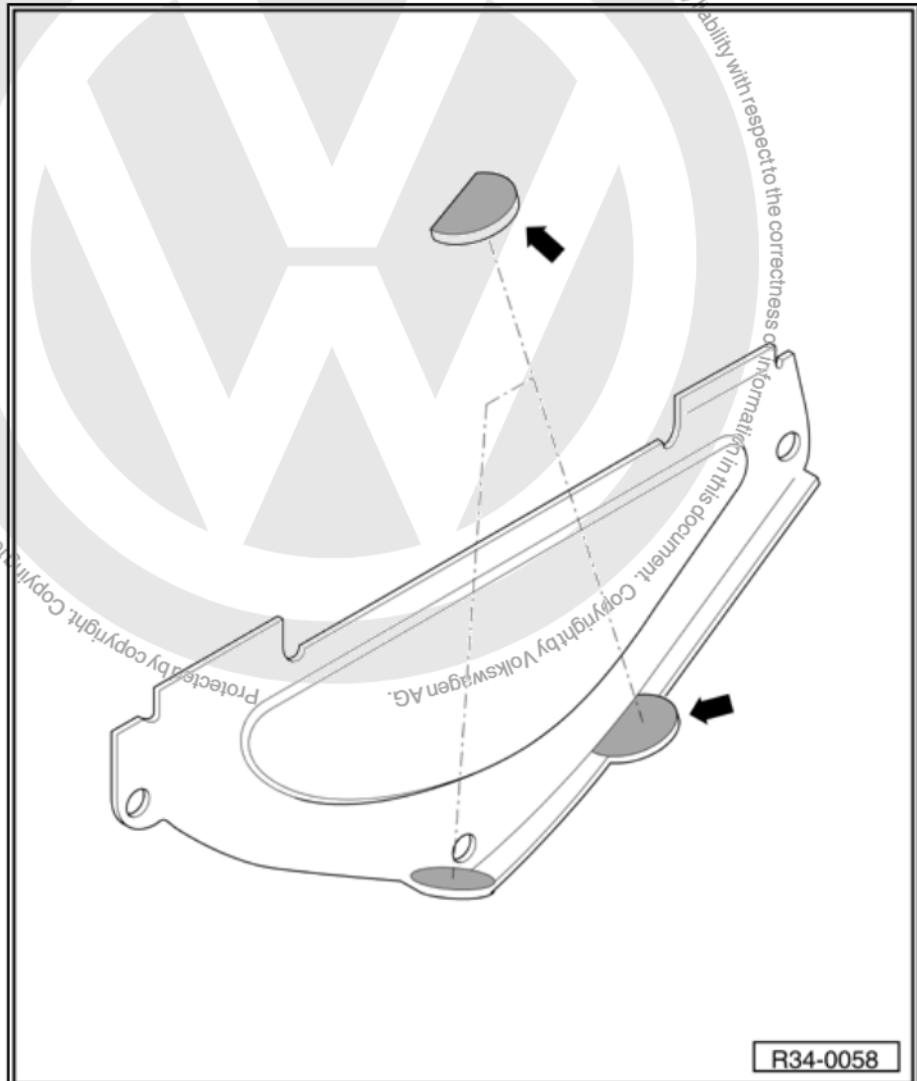


## 15.10 Rubber shim for the clutch compartment cover - glue

- Gol, Parati, Saveiro and Santana

- Product used

- Adhesive for finishing and lining [⇒ page 6](#)

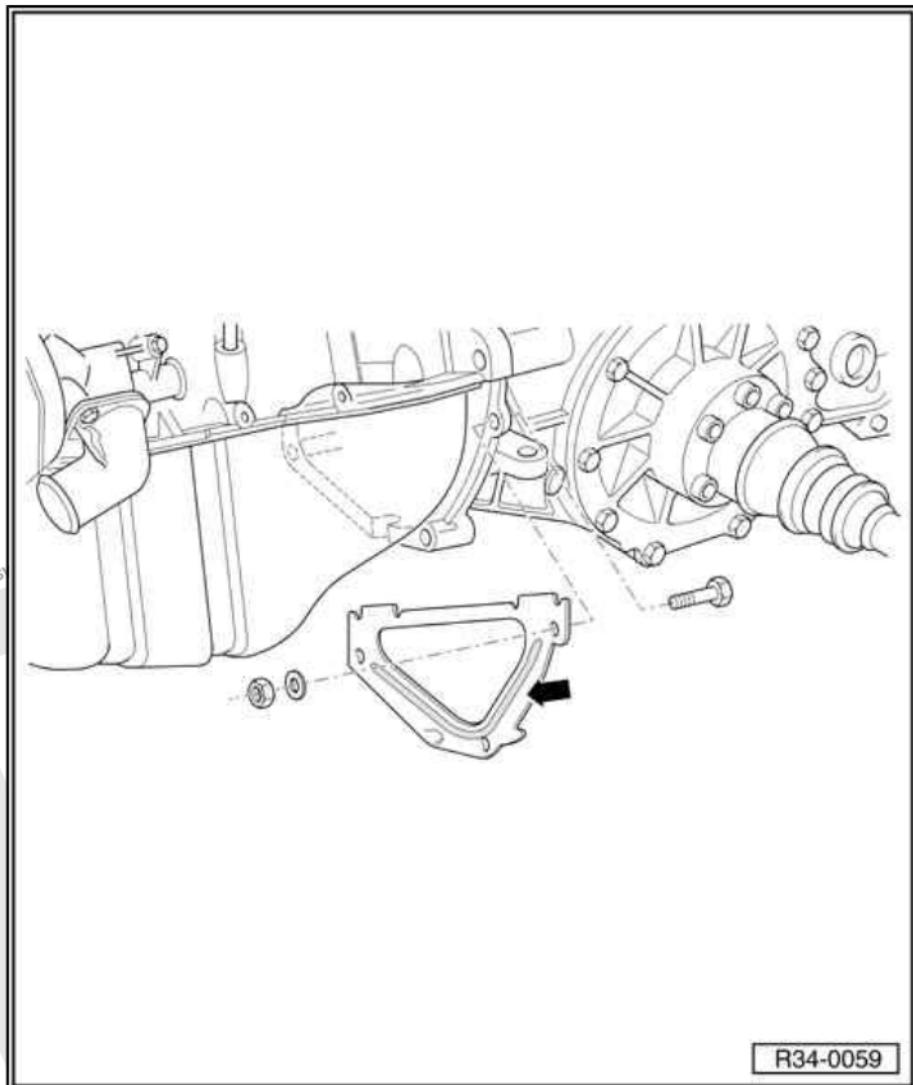


R34-0058



## 15.11 Clutch compartment cover - seal

- Gol, Parati, Saveiro and Santana
- Product used
- Sealing compound



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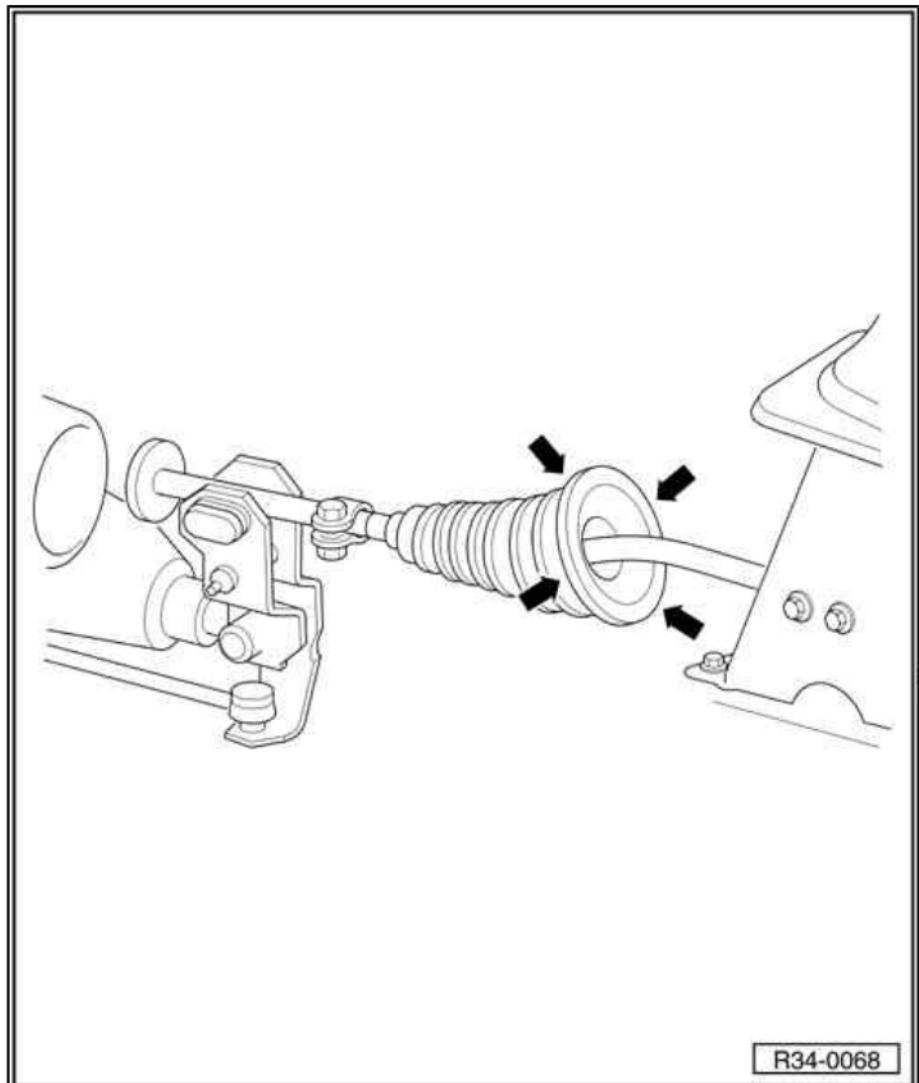


## 15.12 Linkage rod bellows for the gear lever assembly - fasten / seal

- Gol, Parati, Saveiro and Santana

- Product used

- Adhesive for finishing and lining [⇒ page 6](#)



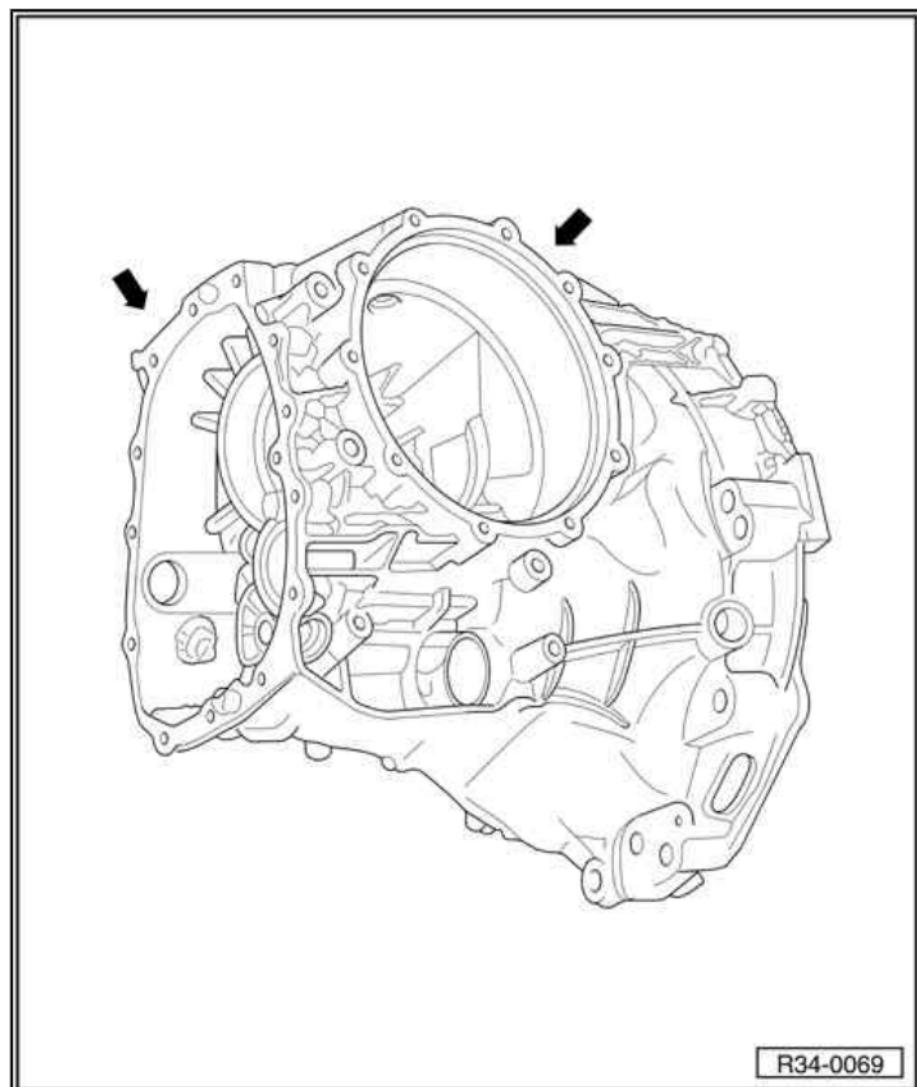
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15.13 Junction of cases and differential cover housing (transfer box / differential)  
- seal

- Gearbox -
- Product used
- Sealing compound  
[⇒ page 13](#)



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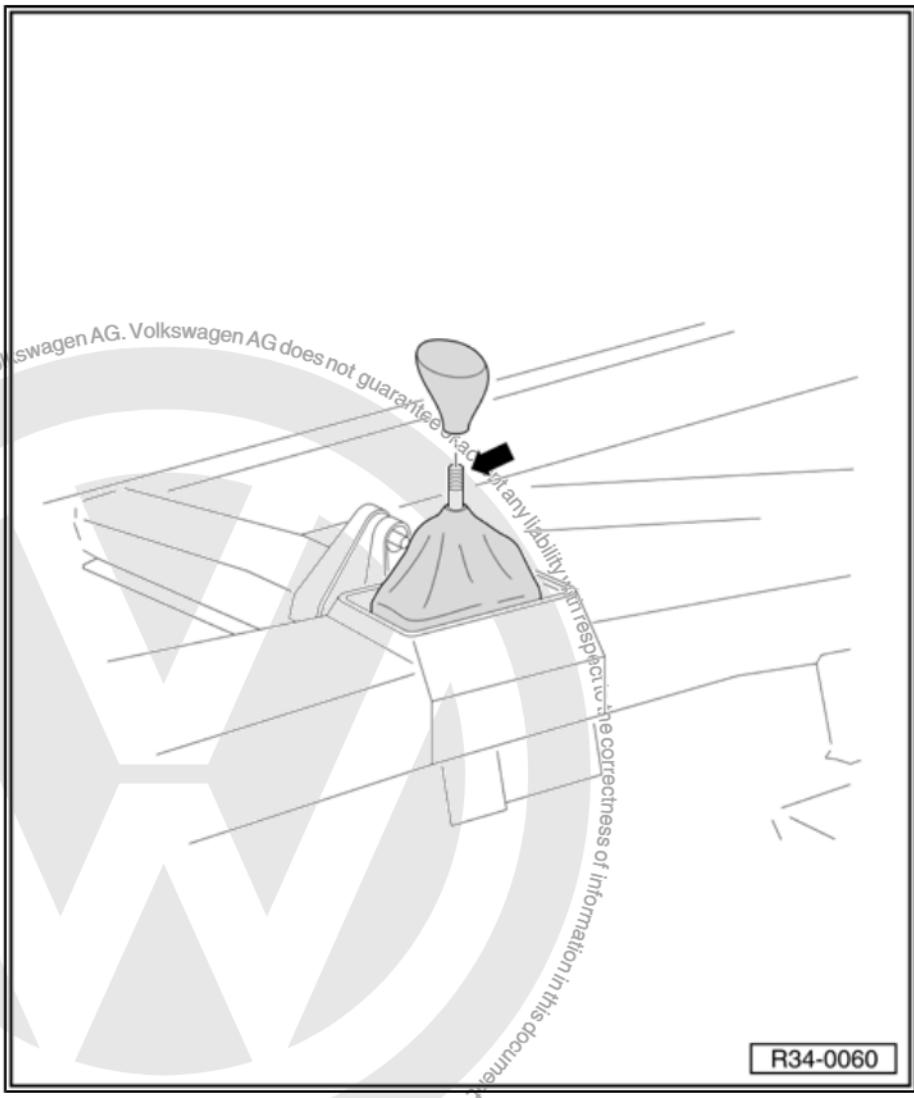


## 15.14 Gear lever handle - fasten

- Gol, Parati, Saveiro and Santana

- Product used

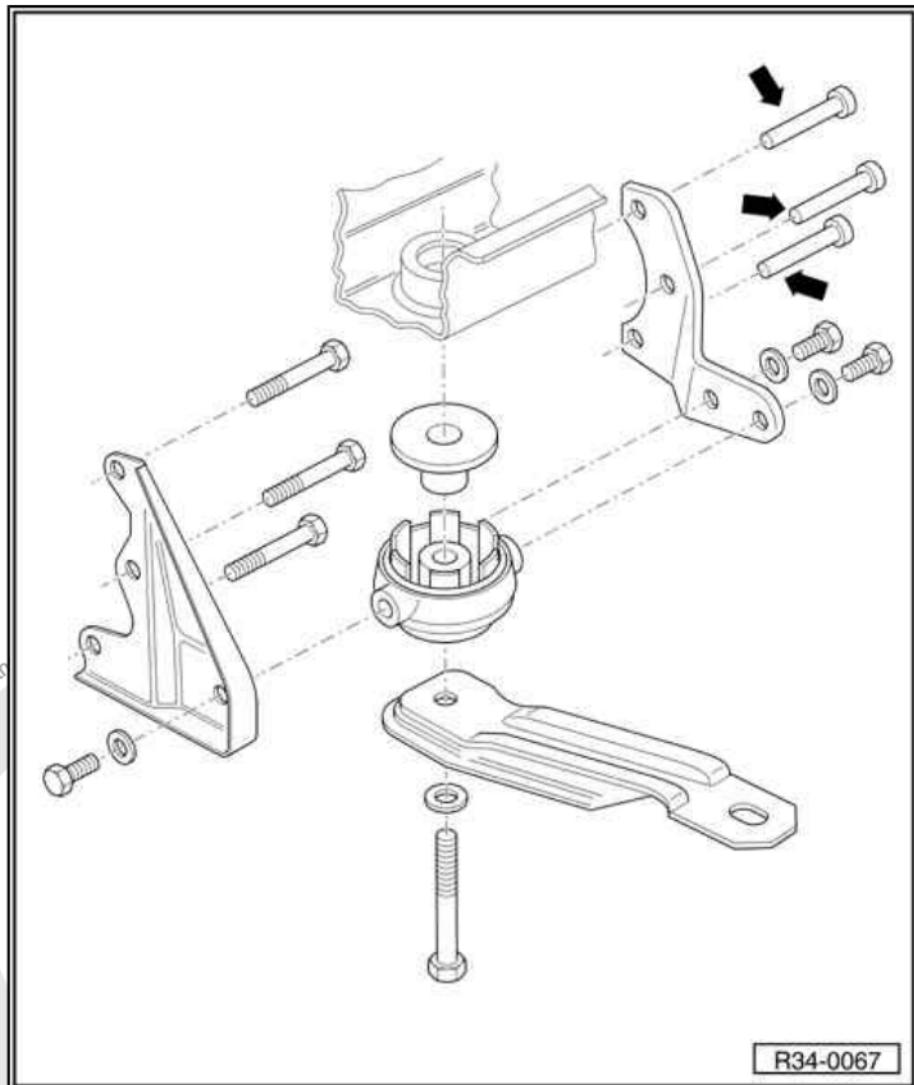
- Instant adhesive [page 5](#)





## 15.15 Fastening screw for the rear support of the gearbox cushion - seal

- Gol, Parati, Saveiro and Santana
- Product used
- Low viscosity lock adhesive  
⇒ [page 6](#)



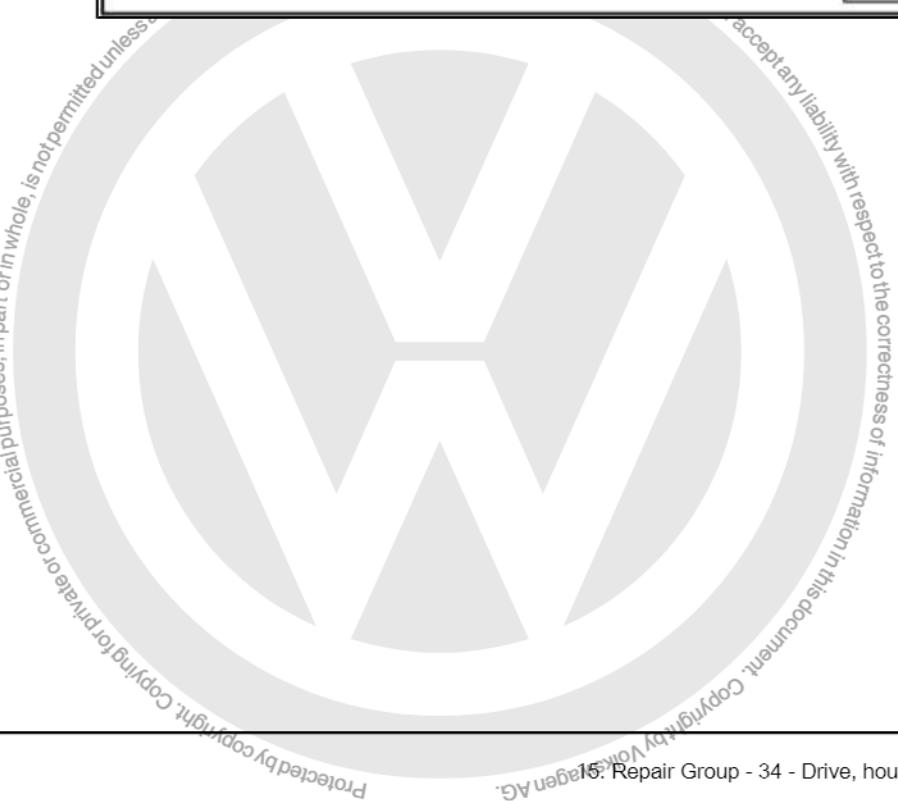
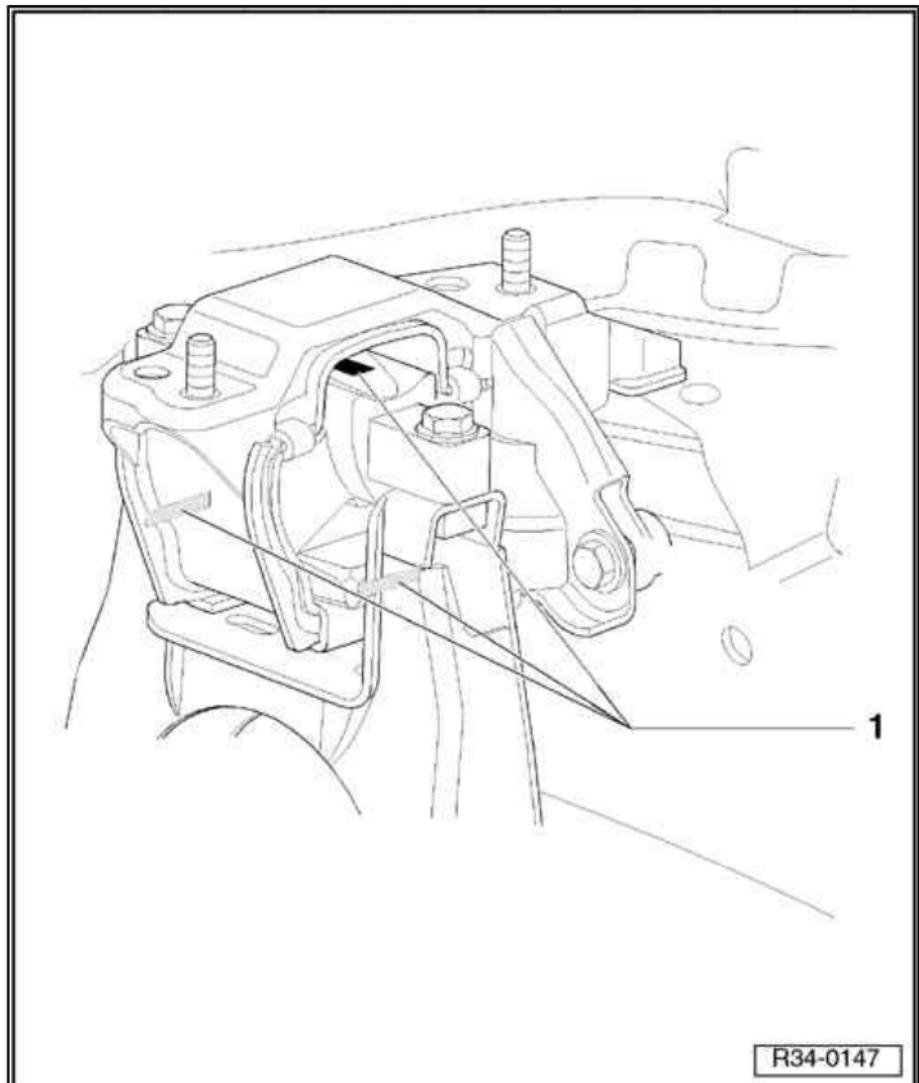
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## 15.16 Gearbox cushion - lubricate

- Manual gearbox
- ◆ For Fox and Polo
- Product used
- Silicone based grease

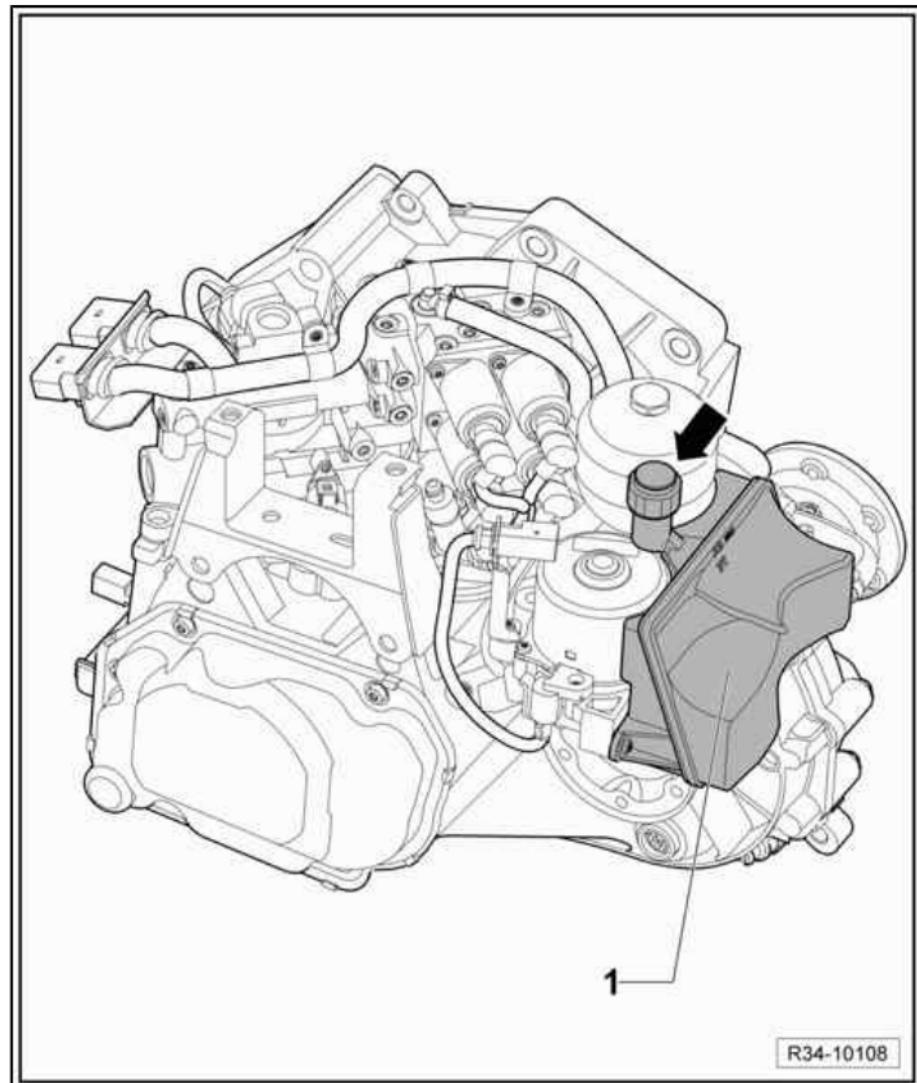
[⇒ page 11](#)





## 15.17 Gear selection mechanism - fill up

- Gearbox - SQ 200
- Product used
- Oil for gear selection mechanism [⇒ page 19](#)
- ◆ -G 052 512 S1- - 1 liter

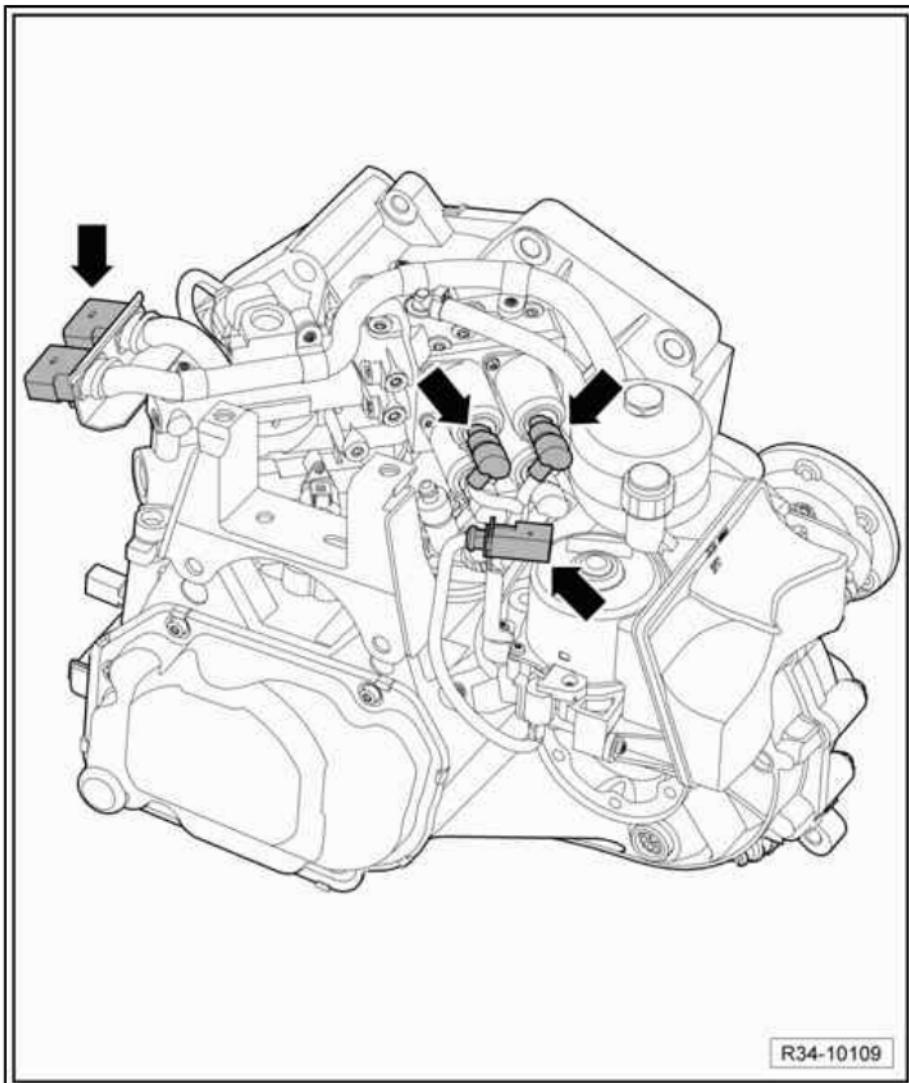


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## 15.18 Electric connectors of the gear selection mechanism - apply Nyogel

- Gearbox - SQ 200
- Product used
- Nyogel [⇒ page 13](#)
- ◆ -G 052 817 A1-



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## 16 Repair Group 35 - Gears and shafts



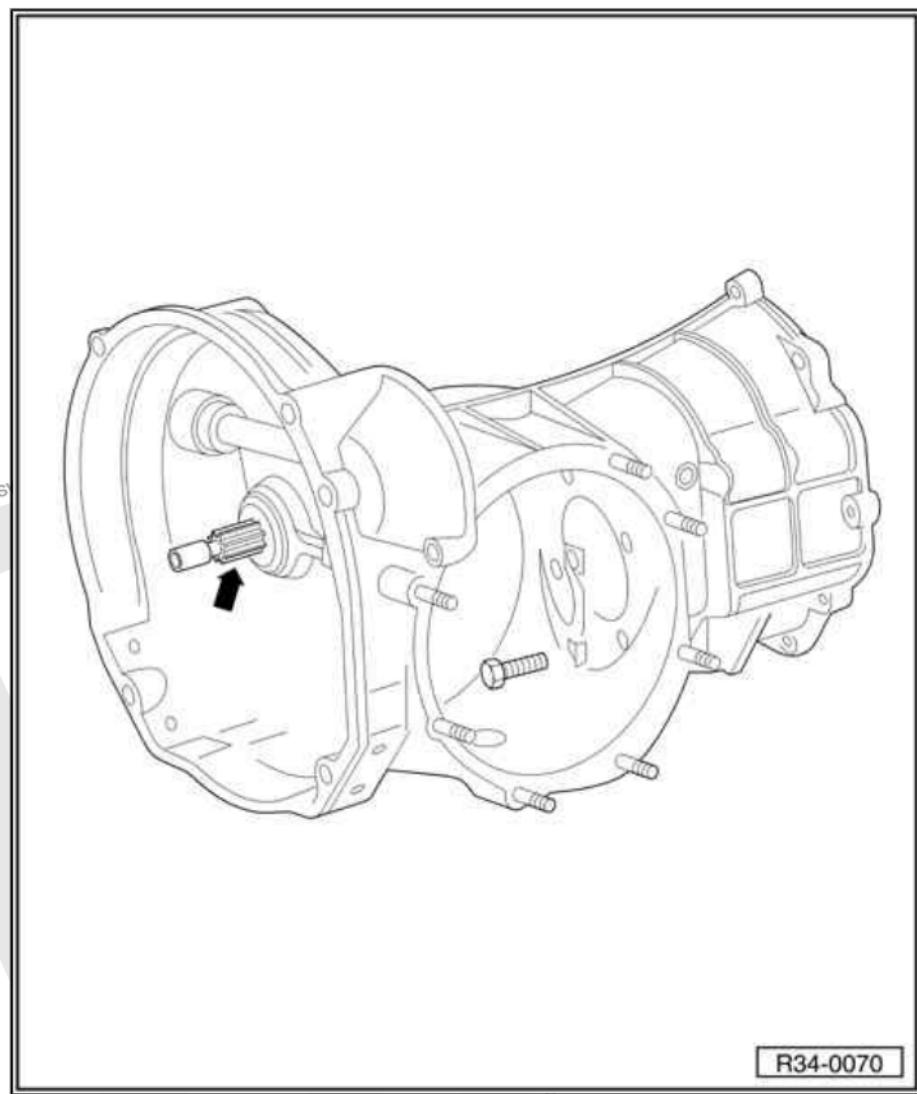
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 16.1 Input shaft splines - lubricate

- Gearbox -
- Product used
- Multi-purpose grease  
⇒ page 9



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## 16.2 Fastening screw for the clutch assembly / 5th gear synchronizer - lock

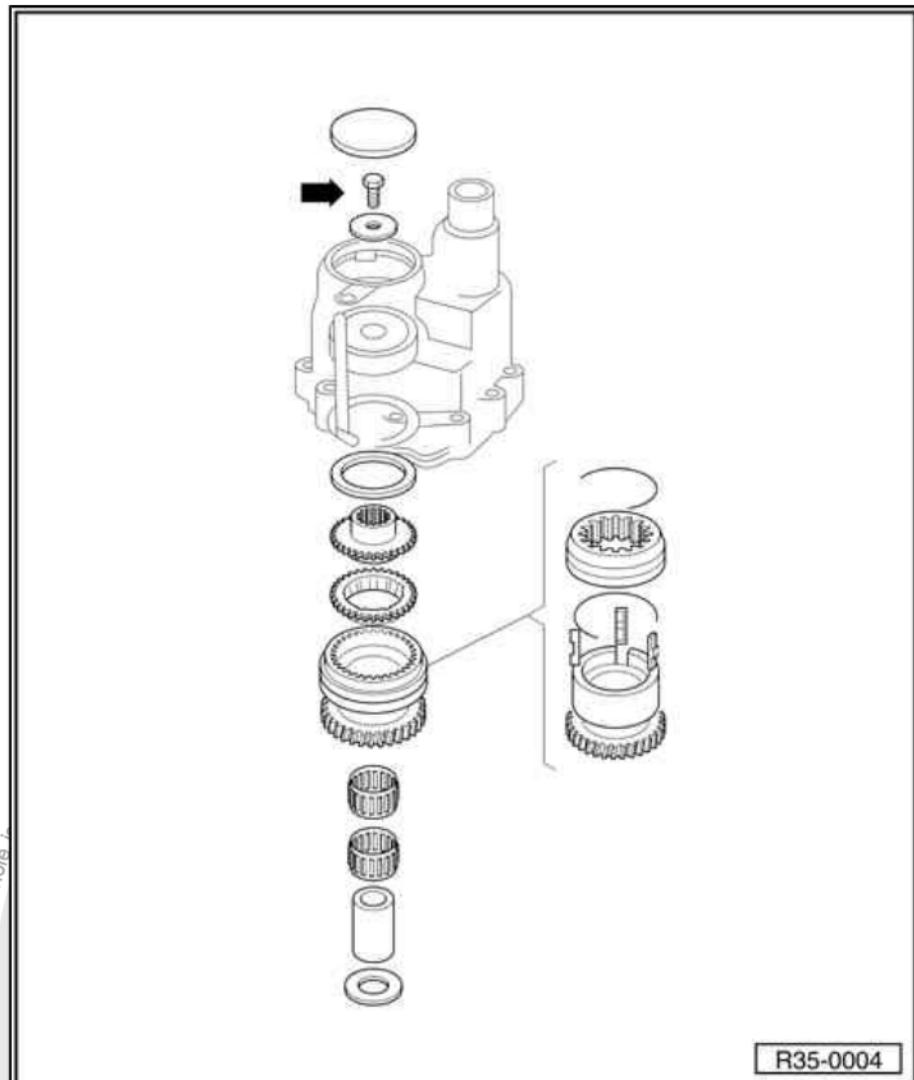
### - Gearboxes -

- 013 - 1.0 L
- 013 - 1.6 L , 1.8 L and 2.0 L

### - Product used

- Low viscosity lock adhesive

[⇒ page 6](#)



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## 17 Repair Group - 37 - Drive, housing



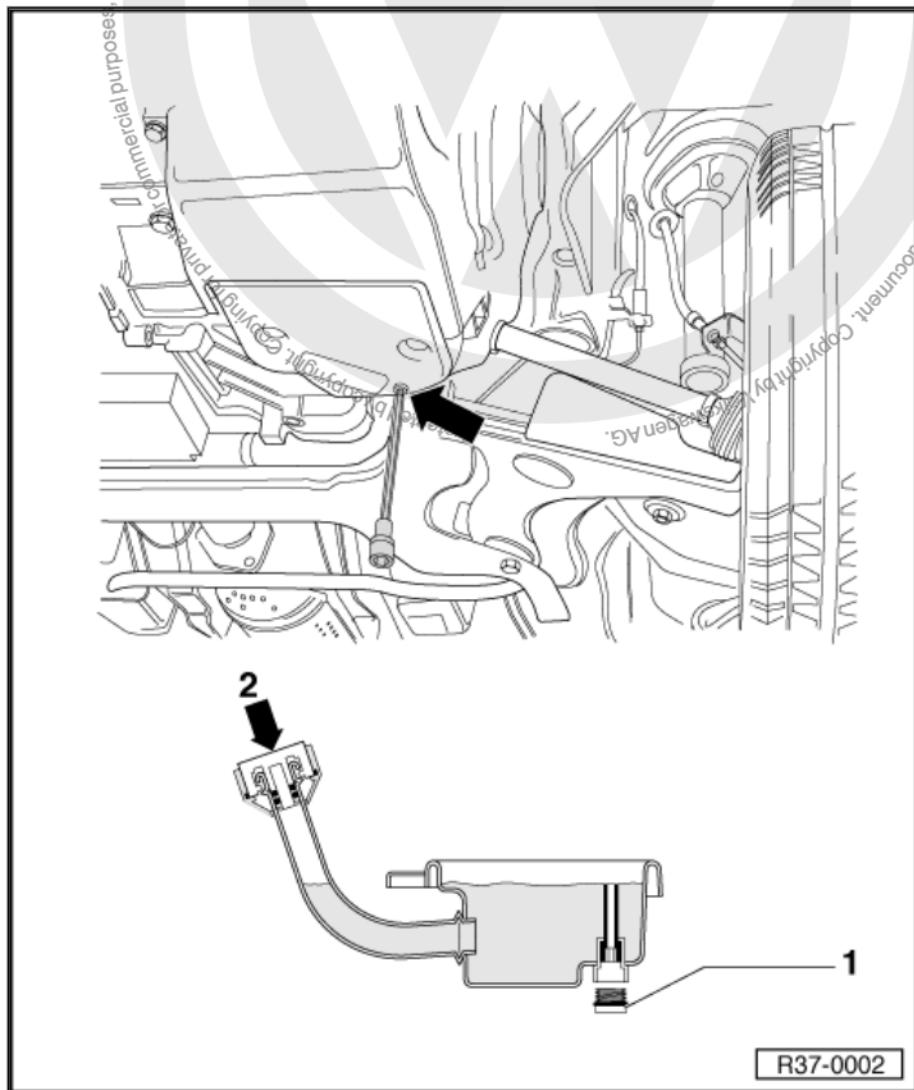
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 17.1 Planetary gear box (automatic gearbox) - fill / top up oil level

- Gearboxes
- Product used
- ATF oil for automatic gearbox  
⇒ [page 19](#)
- ◆ -G 052 162 A2- - 1.0 liter

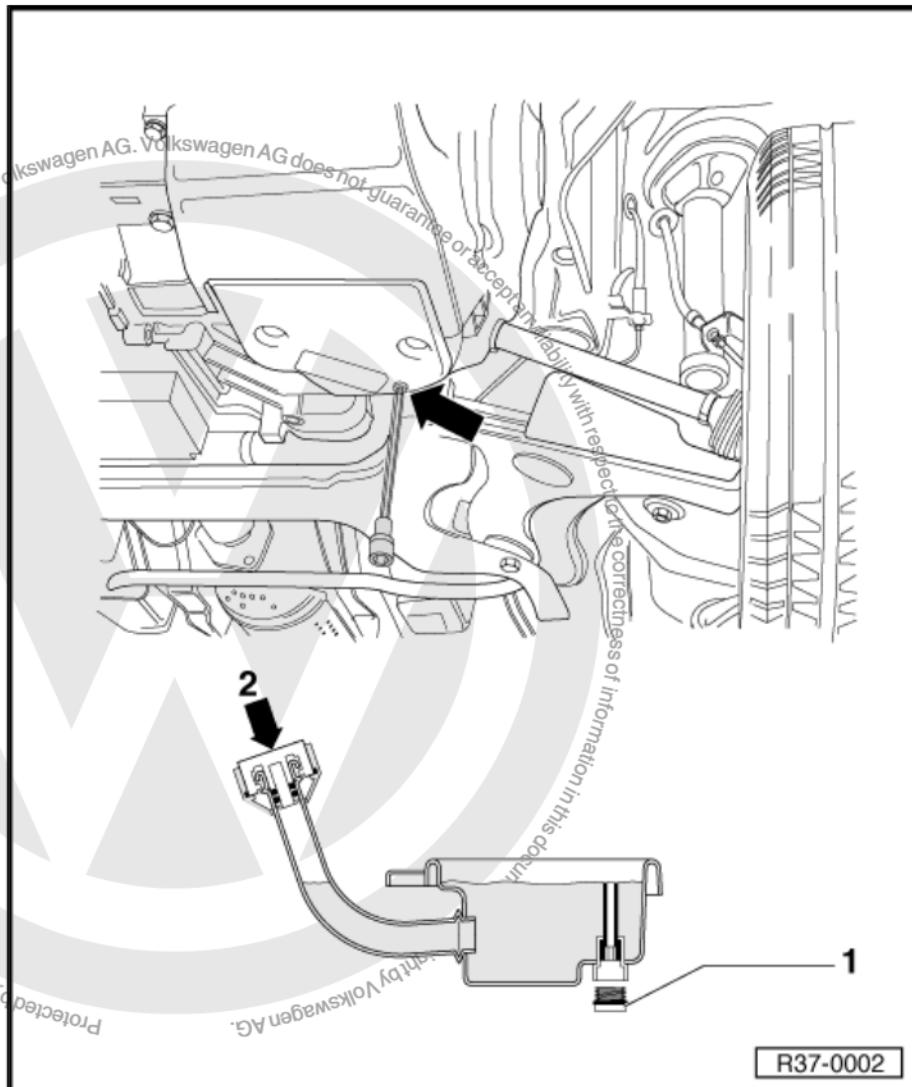


R37-0002



## 17.2 Planetary gear box (automatic gearbox) - fill / top up oil level

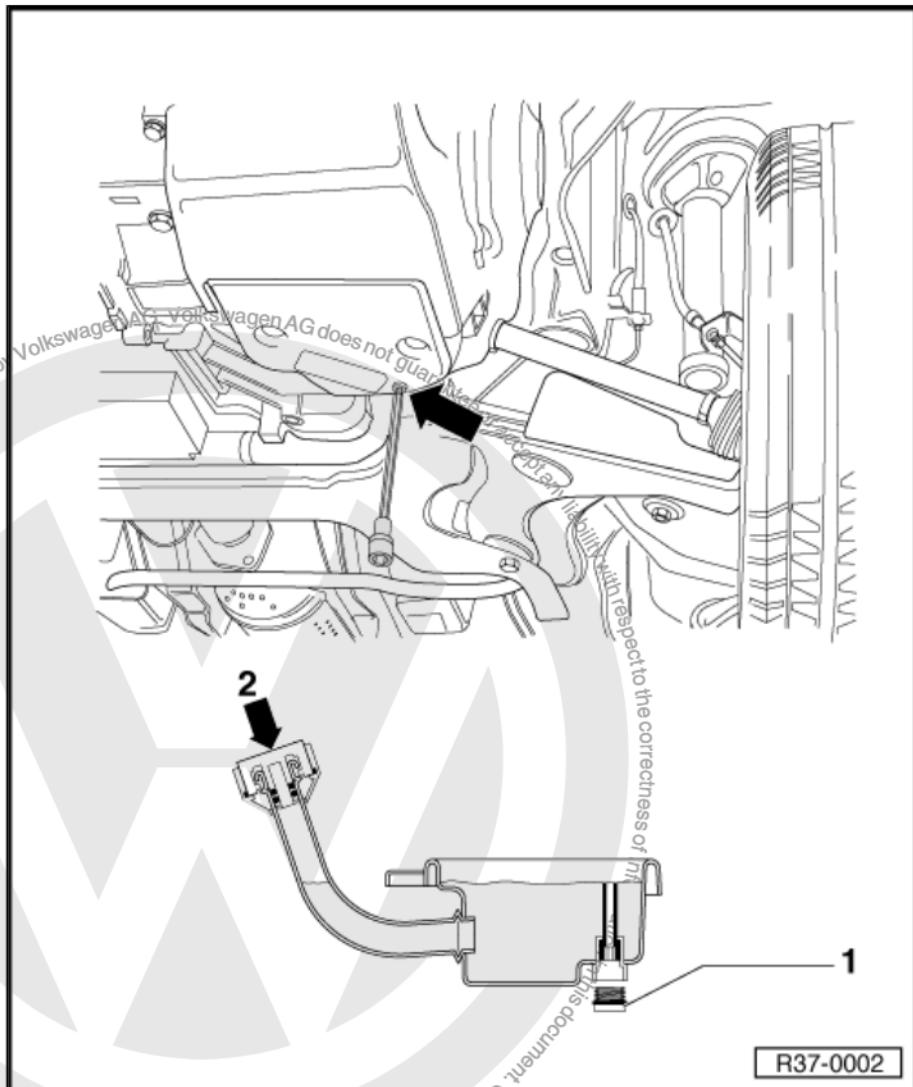
- Gearboxes
- Product used
- ATF oil for automatic gearbox  
⇒ page 19
- ◆ -G 052 990 A2- - 1.0 liter





## 17.3 Planetary gear box (automatic gearbox) - fill / top up oil level

- Gearboxes - 09G
- Product used
- ATF oil for automatic gearbox  
⇒ page 19
- ◆ -G 055 025 A2- - 1.0 liter





## 18 Repair Group - 39 - Gearbox shafts, differential



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 18.1 Gearbox side seals - lubricate

- Gearboxes -

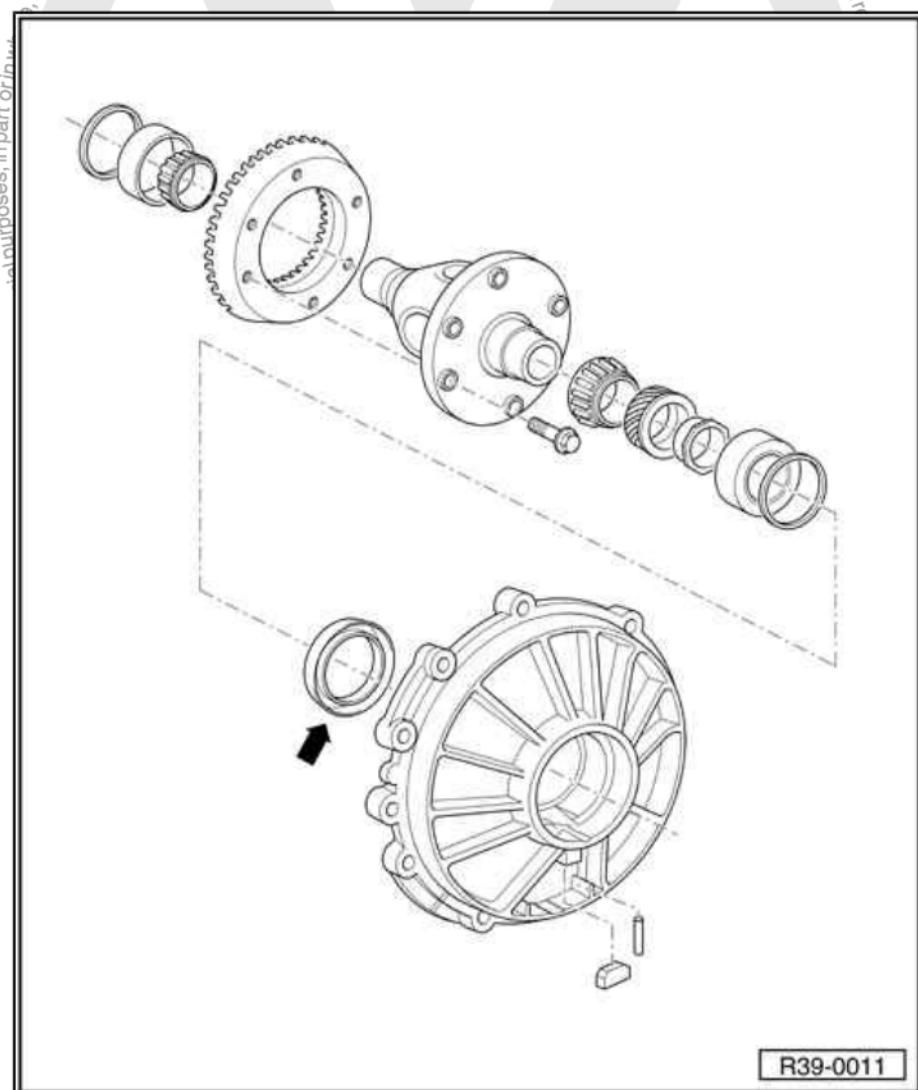
013 - 1.0 L

013 - 1.6 L , 1.8 L and 2.0 L

081

- Product used

- Grease for gearbox side seals [⇒ page 11](#)

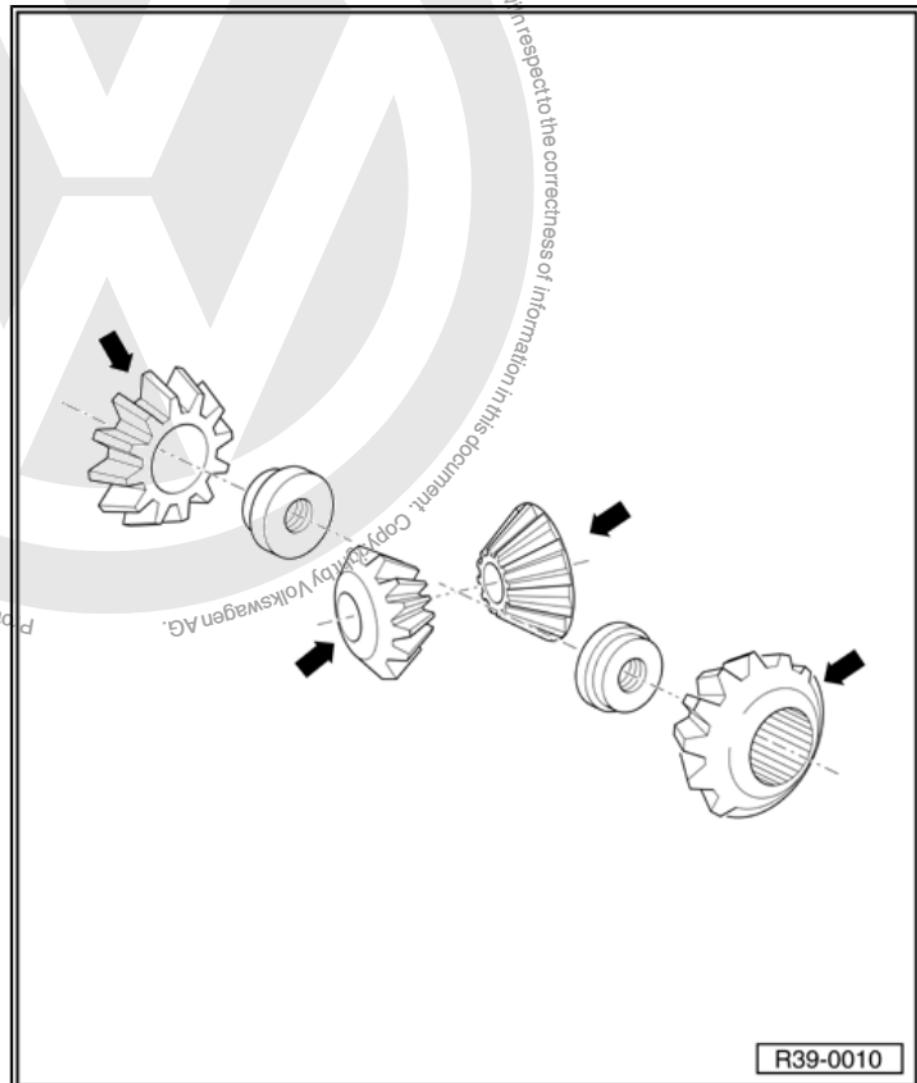




## 18.2 Planetary and satellite gears - lubricate for assembly

- Gearbox
- Product used
- Multi-purpose grease

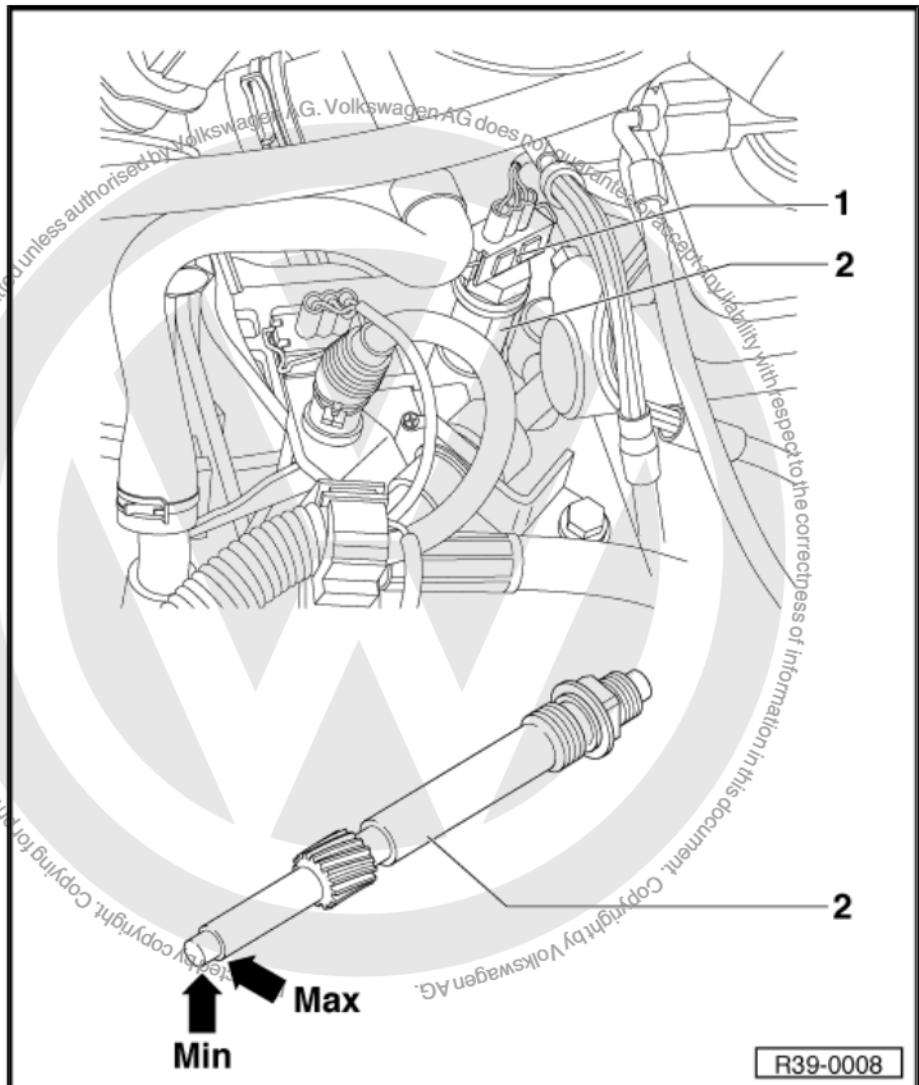
⇒ **page 9**





### 18.3 Automatic gearbox differential - top up oil level

- Gearboxes - 01M
- Product used
- Automatic gearbox differential oil SAE 75W90 [⇒ page 19](#)
- ◆ -G 052 145 S2- - 1.0 litre





## 18.4 Differential cover with gearbox housing - seal

- Gearboxes -

012 - 2.0 16v

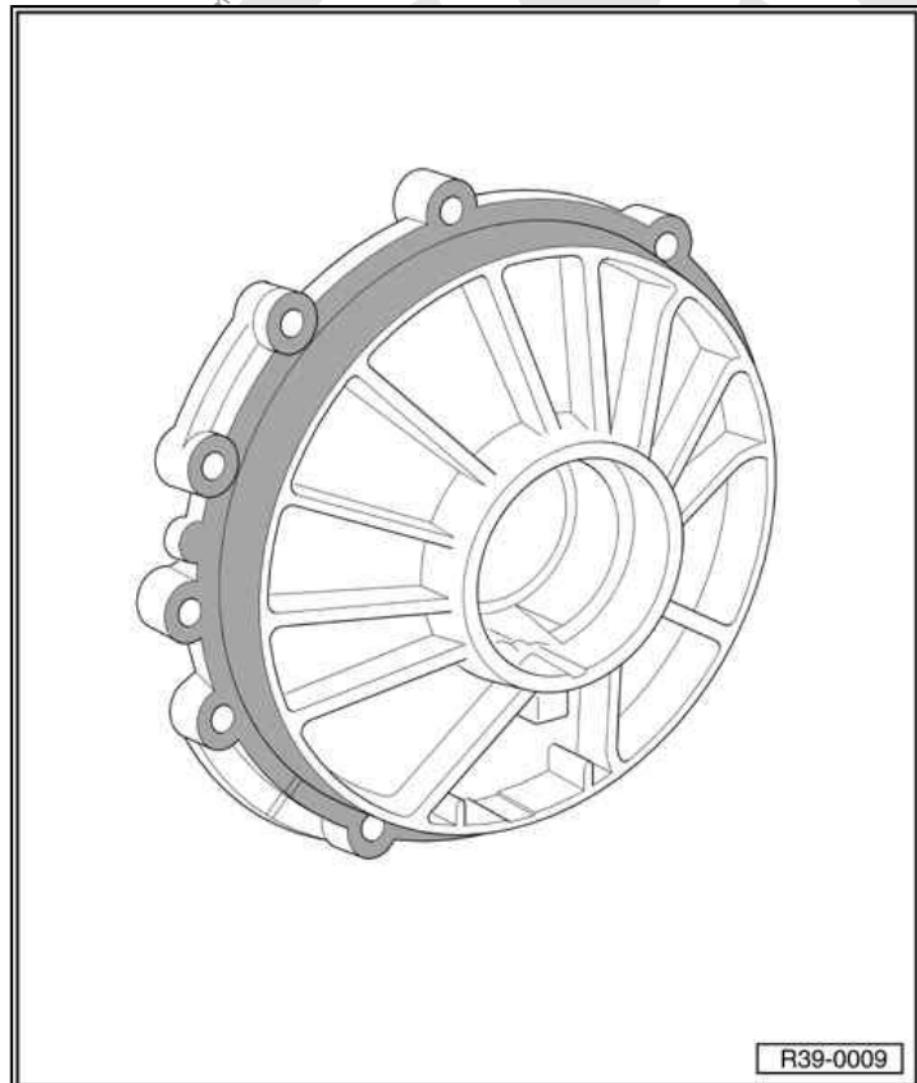
013 - 1.0 L

013 - 1.6 L , 1.8 L and 2.0 L

081

- Authorized product

- Sealing adhesive [⇒ page 7](#)





## 19 Repair Group - 40 - Front suspension



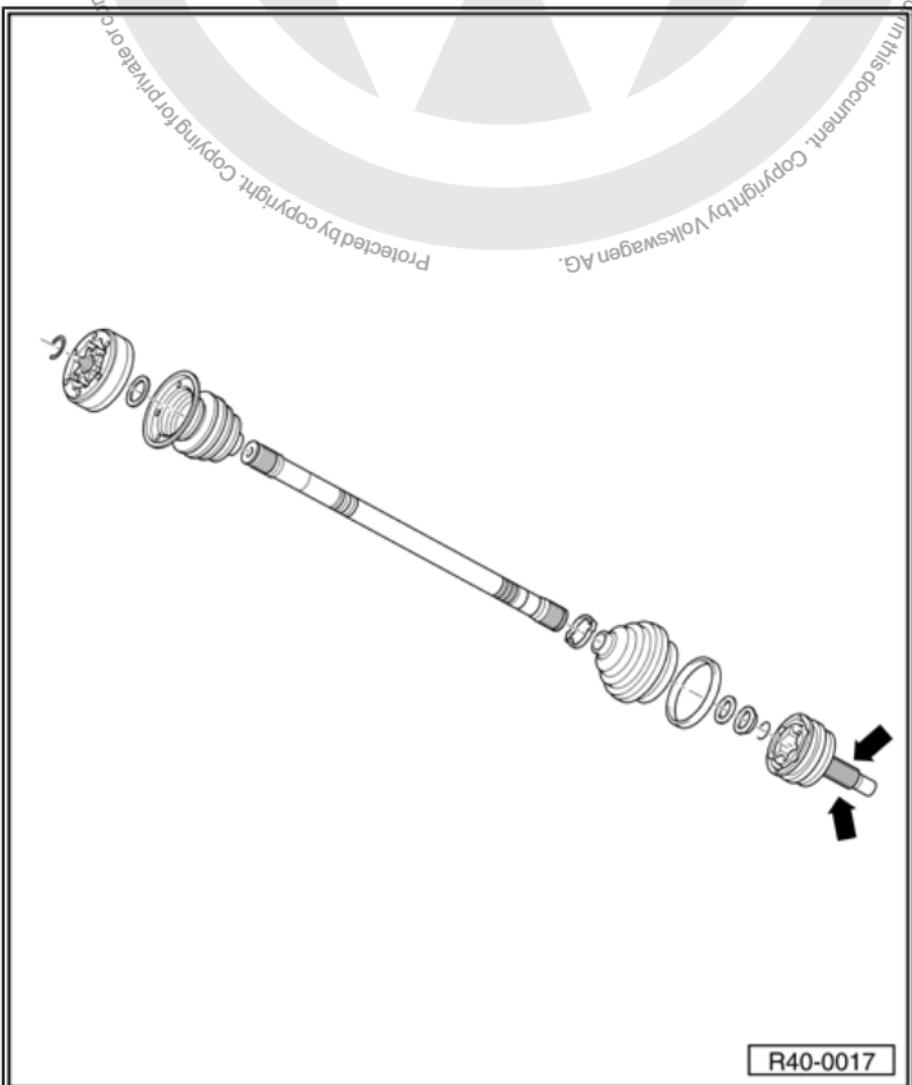
### WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals".

### 19.1 Constant velocity joint spline - lubricate

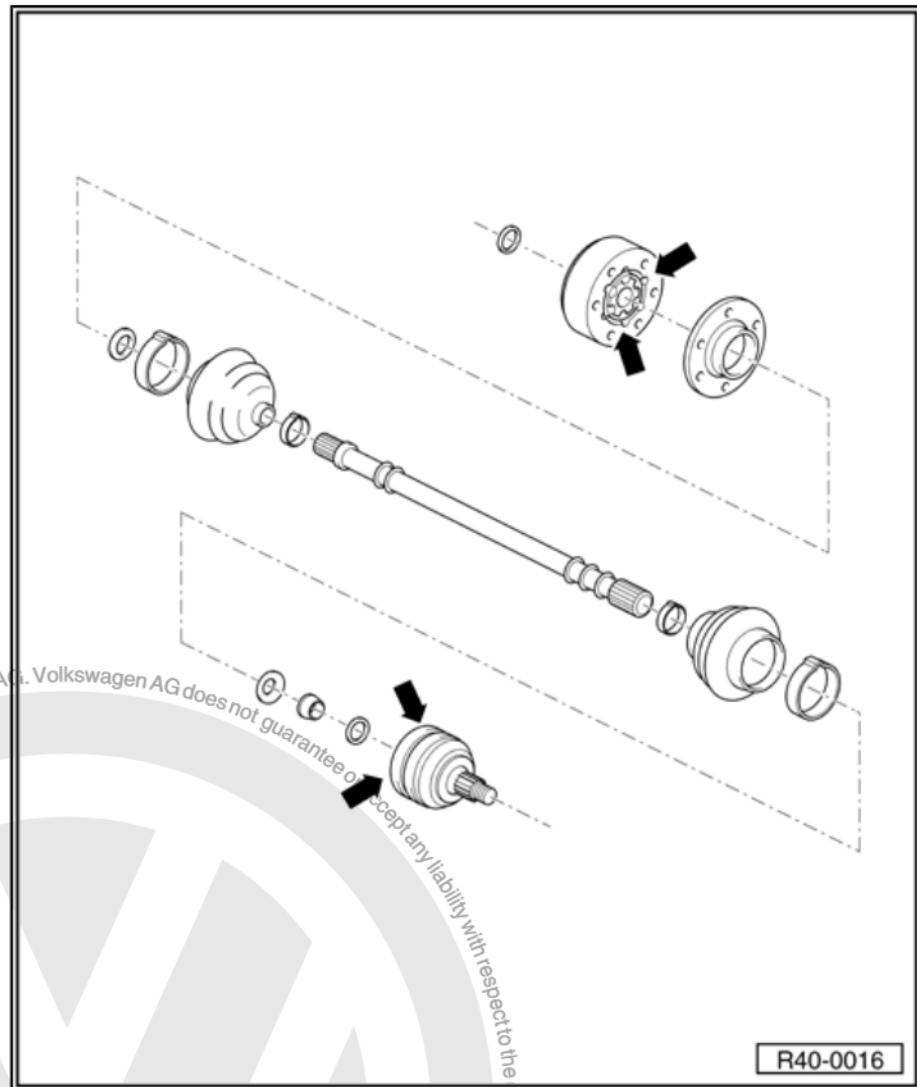
- Gol, Parati, Saveiro and Santana
- Product used
- Lubricating paste for constant velocity joints [⇒ page 13](#)





## 19.2 Inner and outer constant velocity joint - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Lubricating paste for constant velocity joints ⇒ page 13



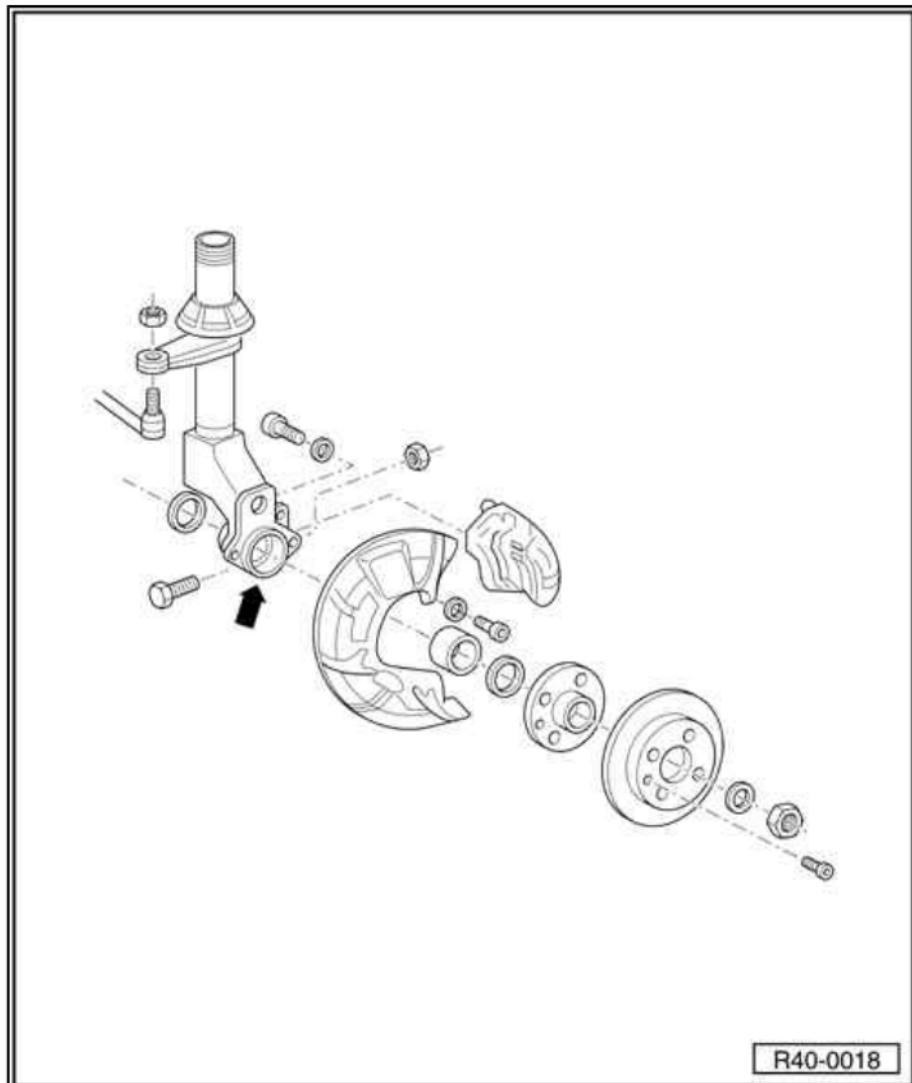


### 19.3 Front wheel bearing mounting - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- White lubricating grease  
⇒ [page 20](#)

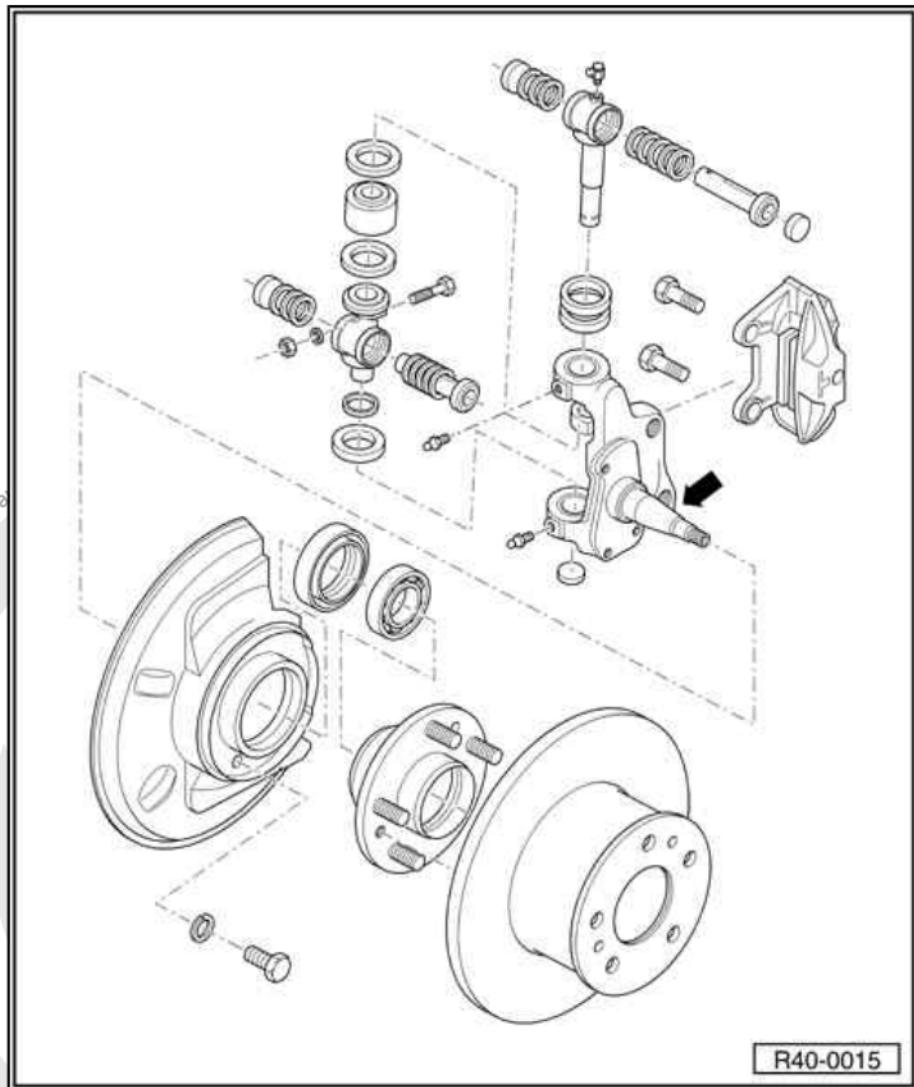


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## 19.4      Axle end - lubricate

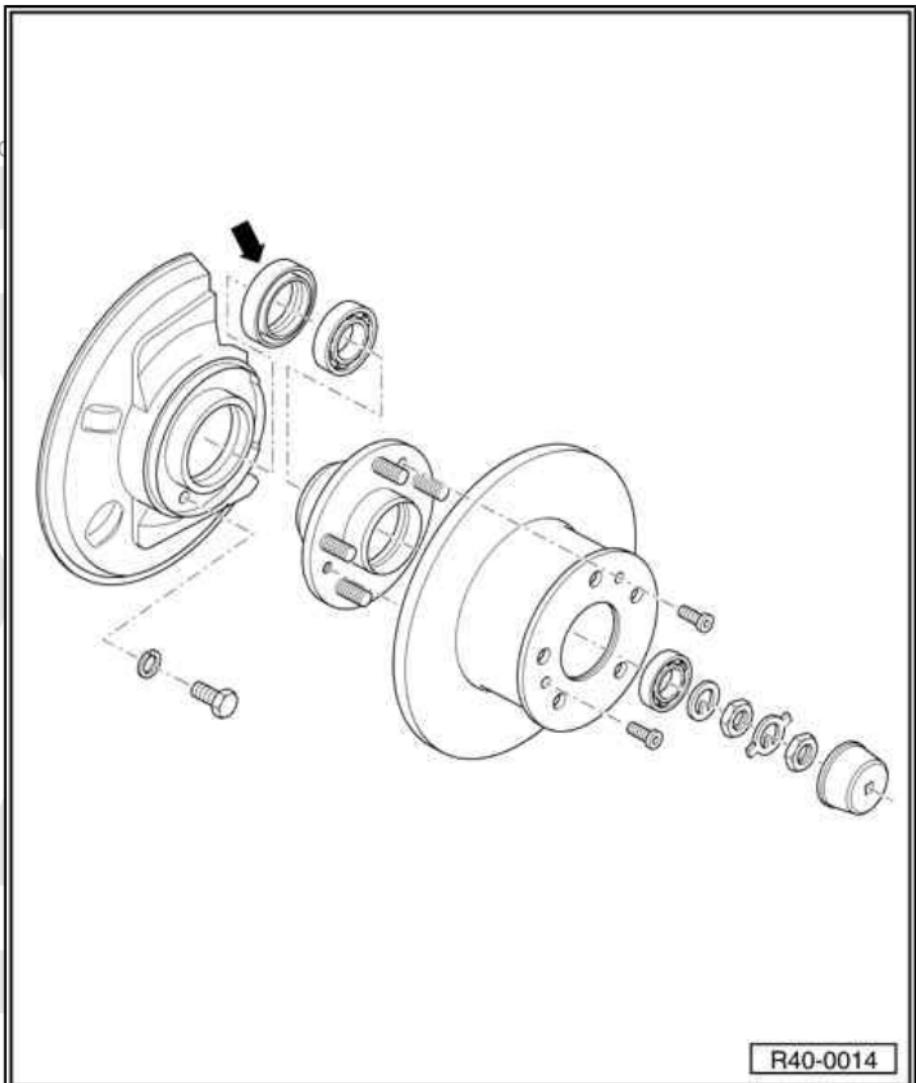
- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 10](#)





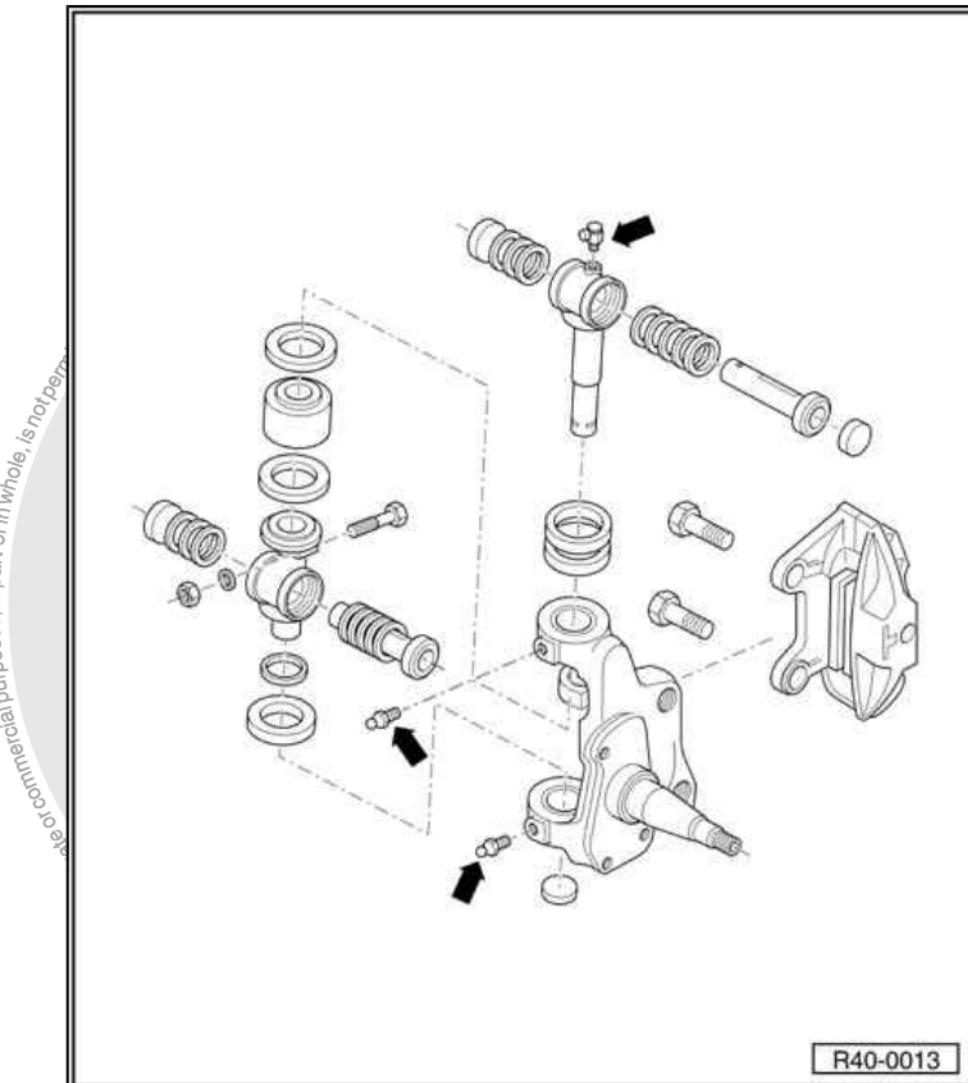
#### 19.4.1 Front wheel hub seal - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 10](#)



#### 19.4.2 King pin bearing - lubricate

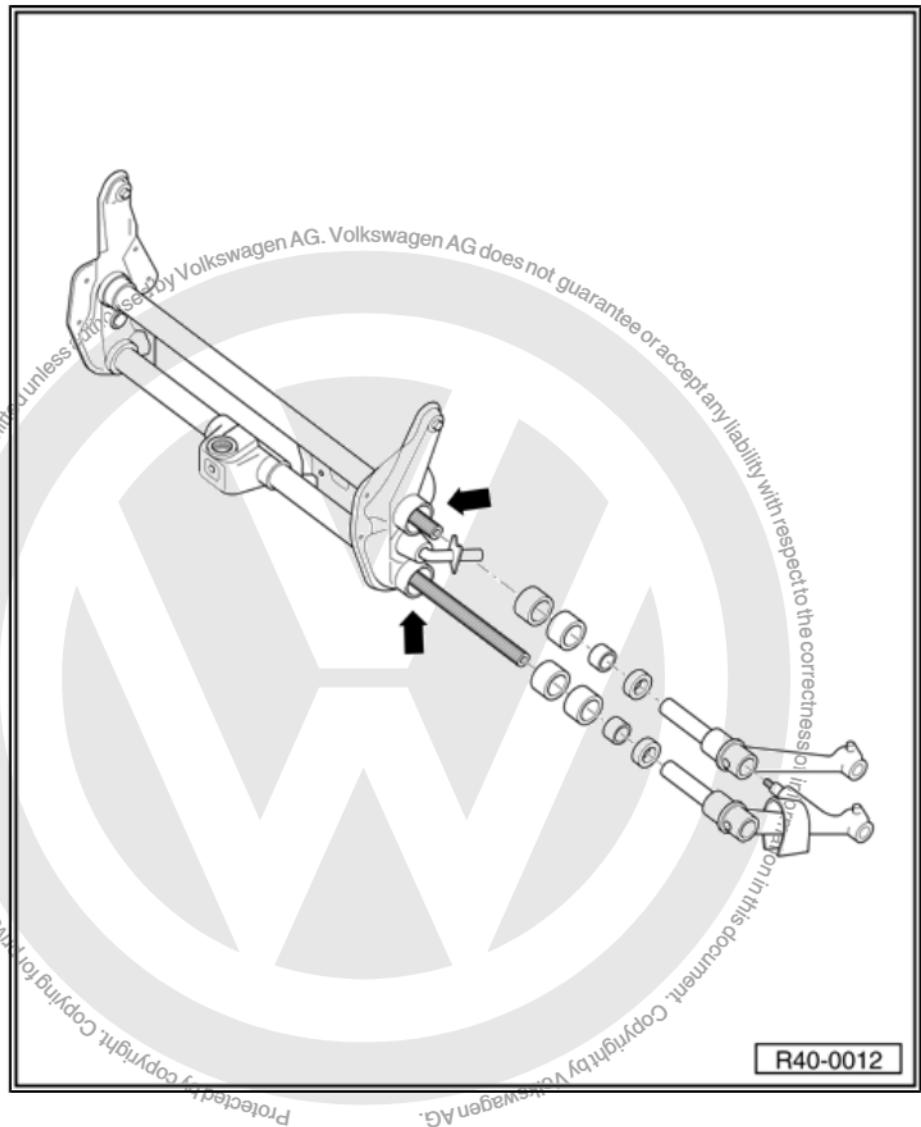
- Kombi
- Product used
- Multi-purpose grease  
⇒ page 10





### 19.4.3 Front axle beam - lubricate

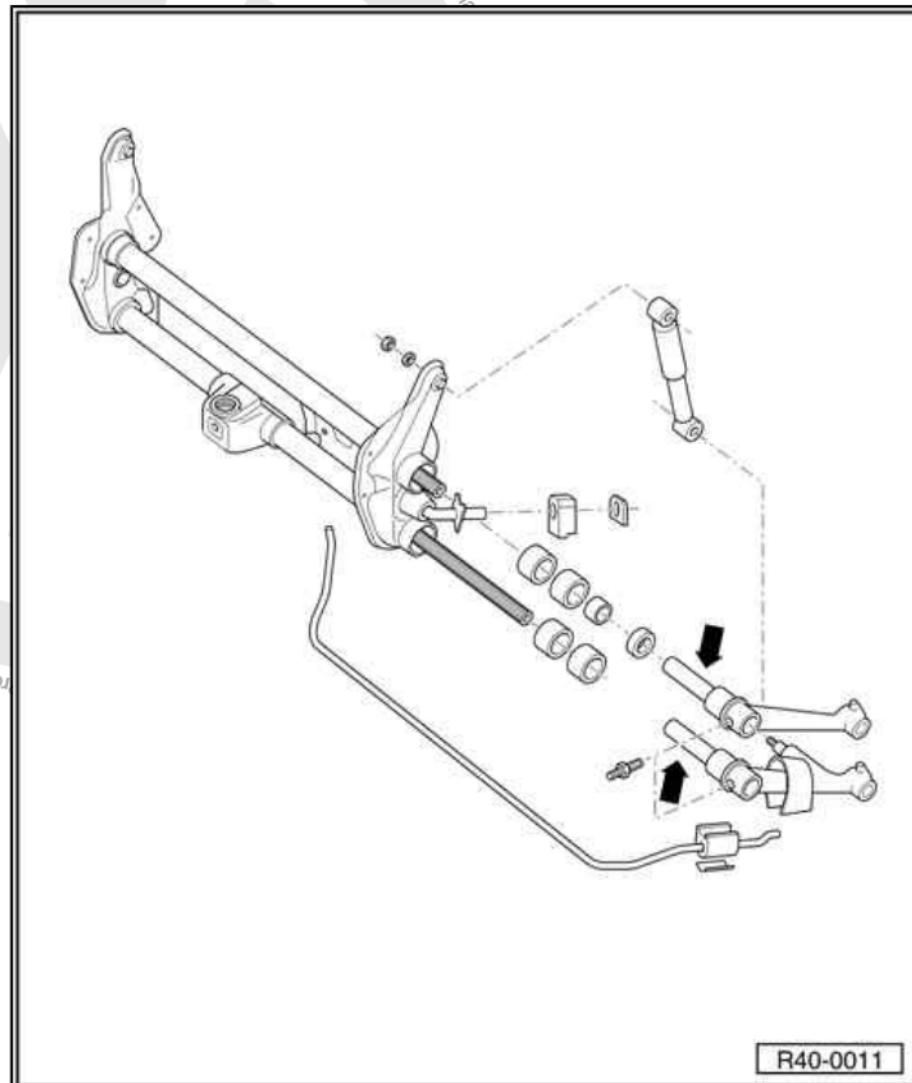
- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 10](#)





#### 19.4.4 Suspension arms - lubricate

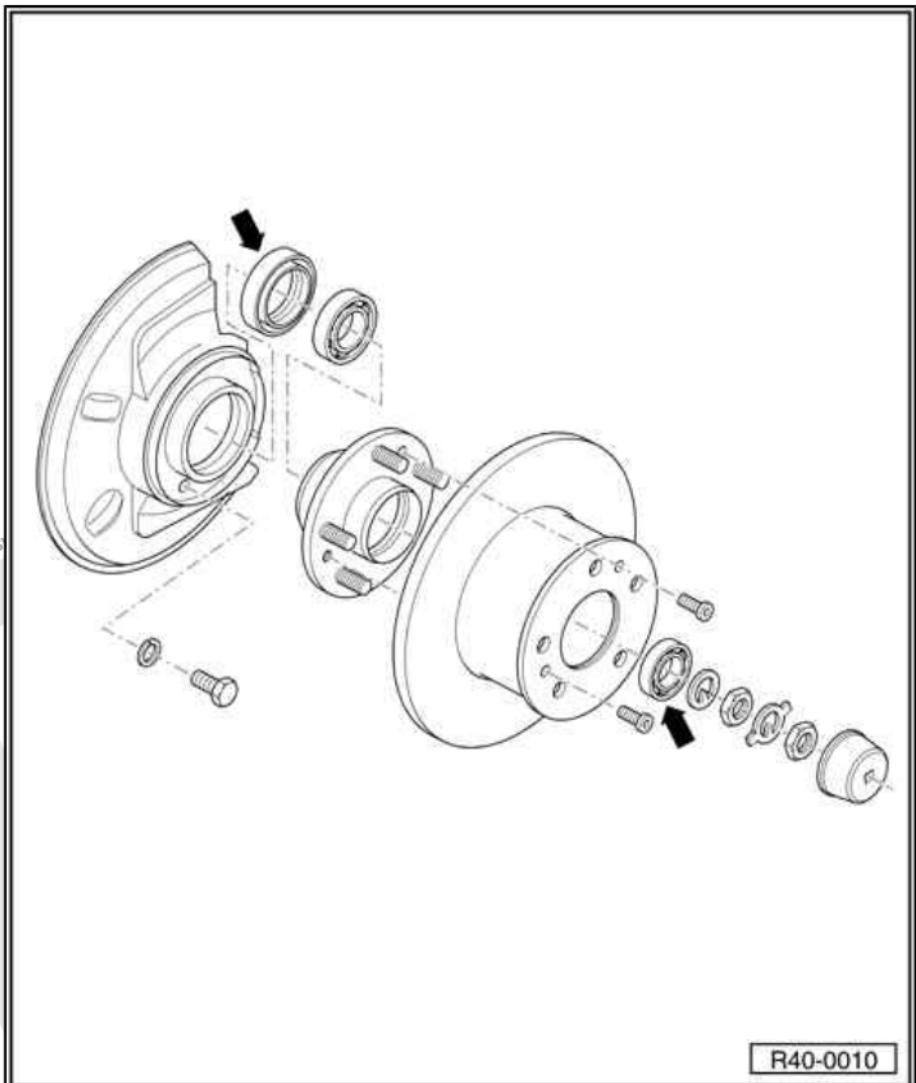
- Kombi
- Product used
- Multi-purpose grease  
=> [page 10](#)





#### 19.4.5 Front wheel bearing - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 10](#)

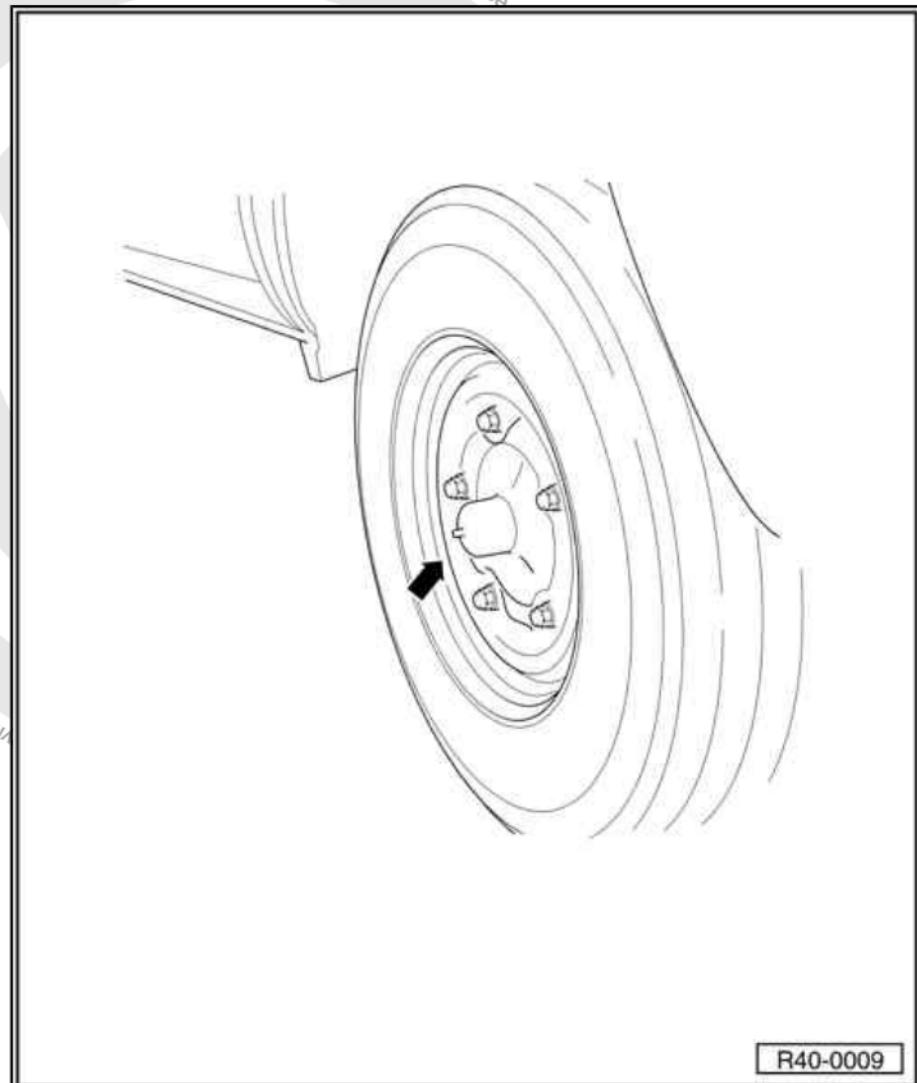


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#### 19.4.6 Passage hole for the speedometer cable in the wheel hub protector - seal

- Kombi
- Product used
- Sealing compound - MKD 106 007 40





## 20 Repair Group - 42 - Rear suspension



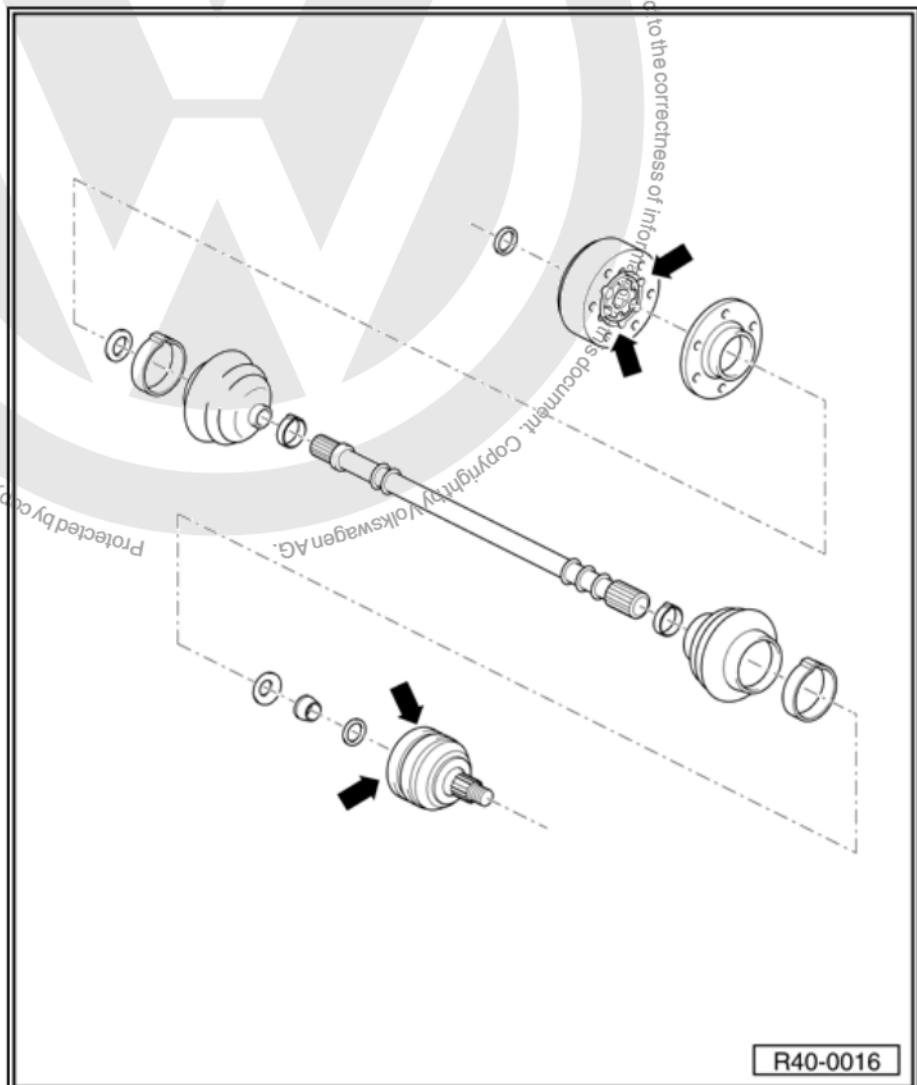
### WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals".

### 20.1 Inner and outer constant velocity joint - lubricate

- Kombi
- Product used
- Lubricating paste for constant velocity joints [⇒ page 13](#)

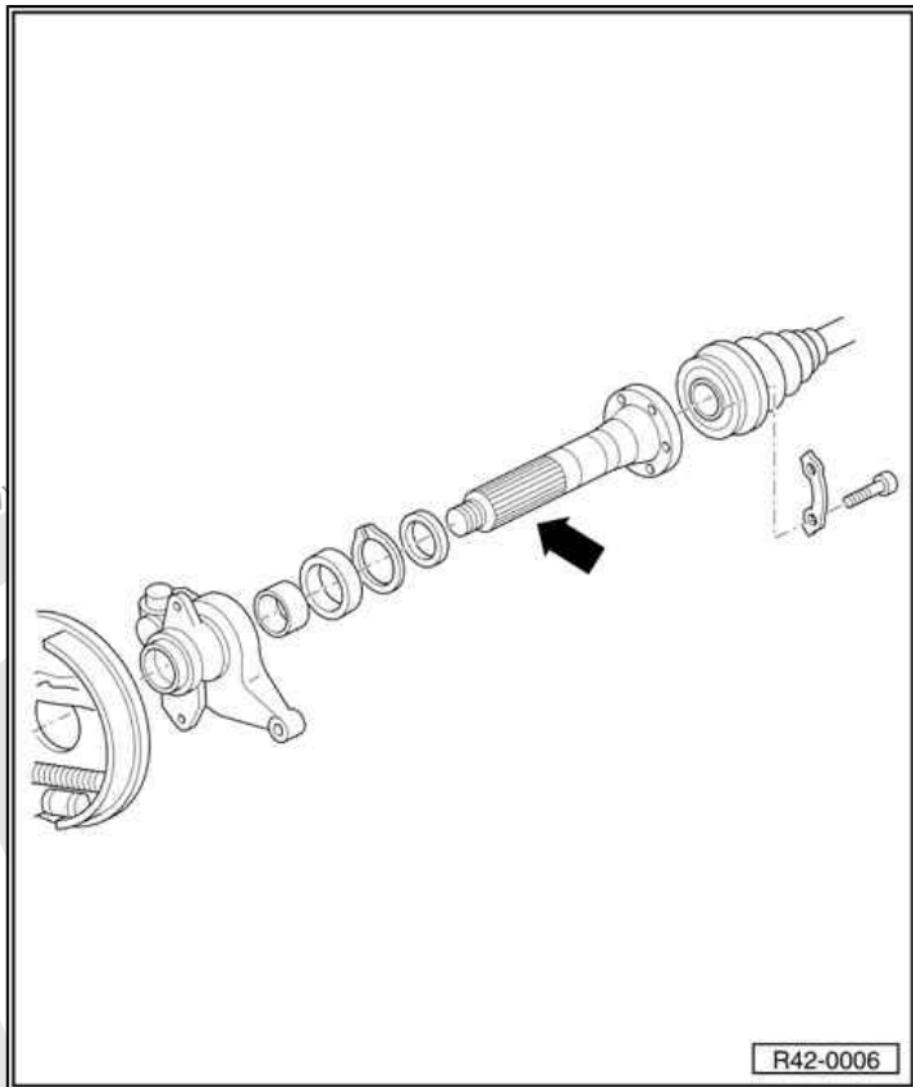


R40-0016



## 20.2 Shaft end splines - lubricate

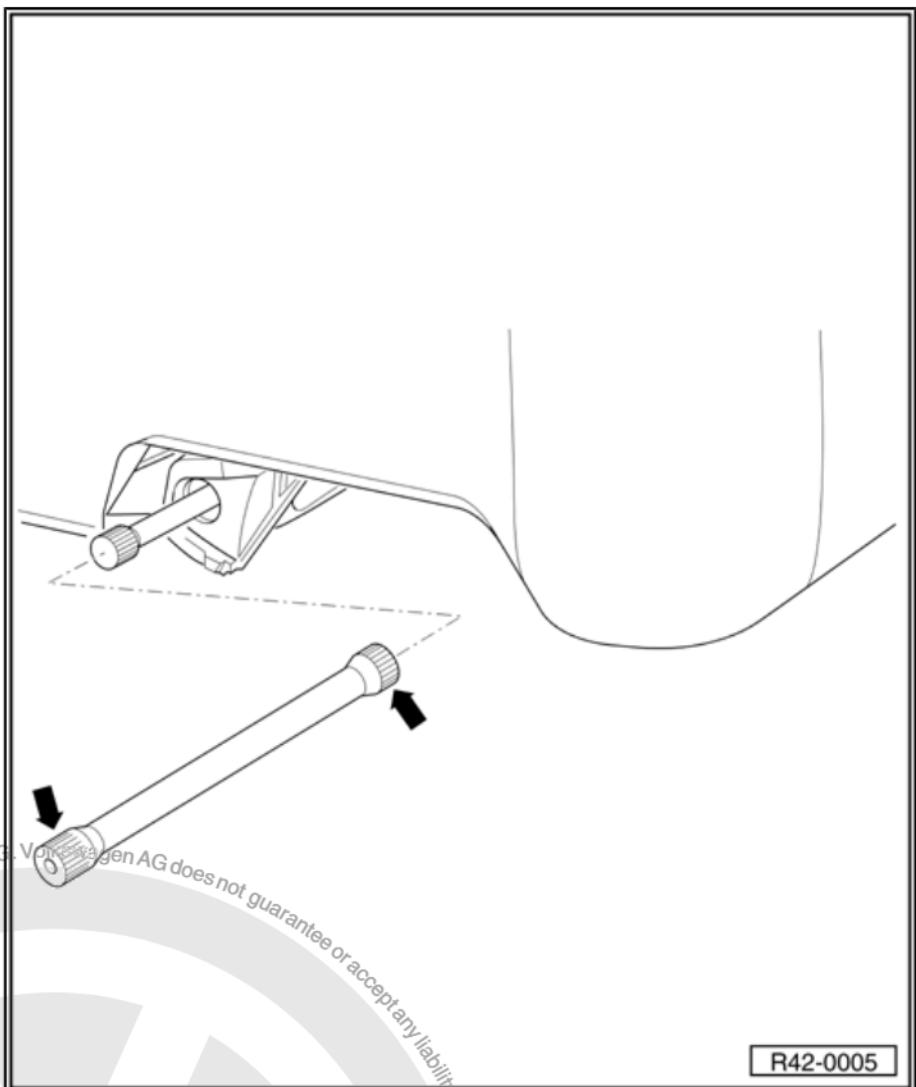
- Kombi
- Product used
- Multi-purpose grease  
⇒ [page 9](#)





## 20.3 Rear torsion bar - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)



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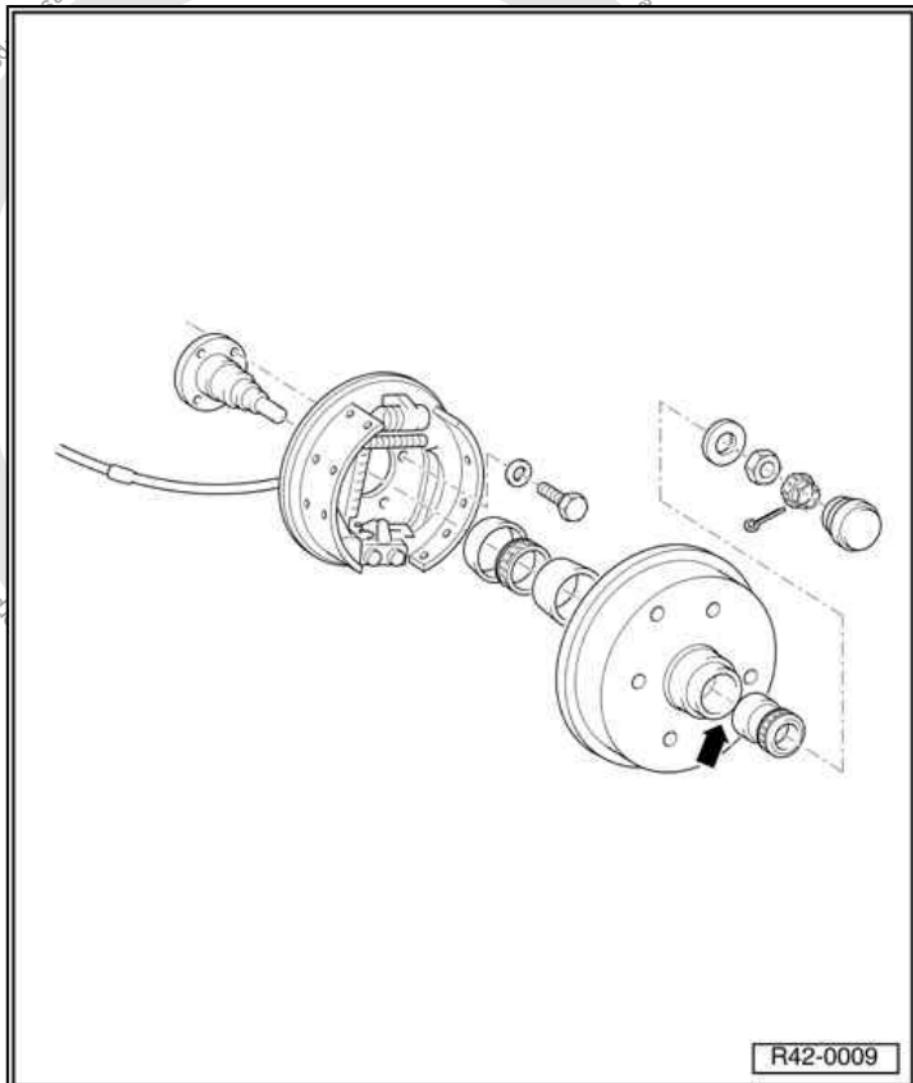


## 20.4 Rear wheel hub - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

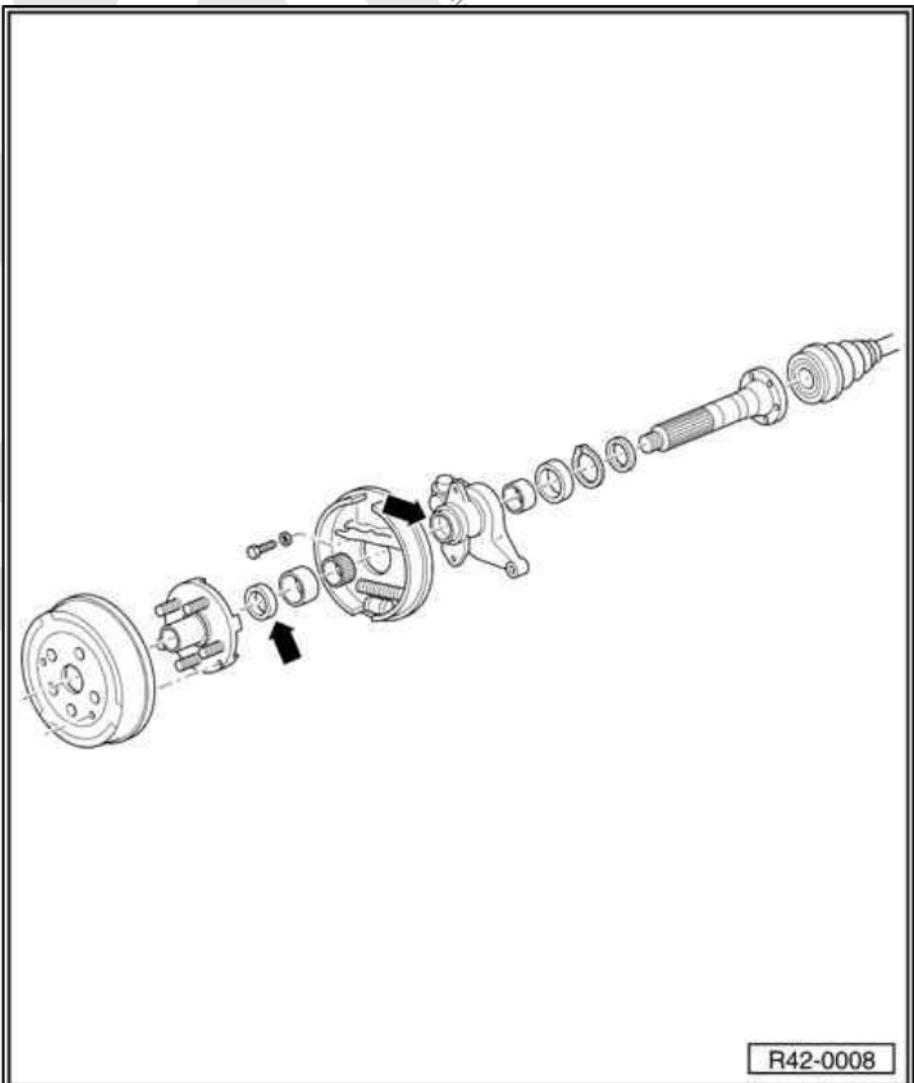
- Multi-purpose grease  
⇒ [page 10](#)





## 20.5 Rear wheel hub seal - lubricate

- Kombi
- Product used
- Multi-purpose grease  
⇒ [page 10](#)

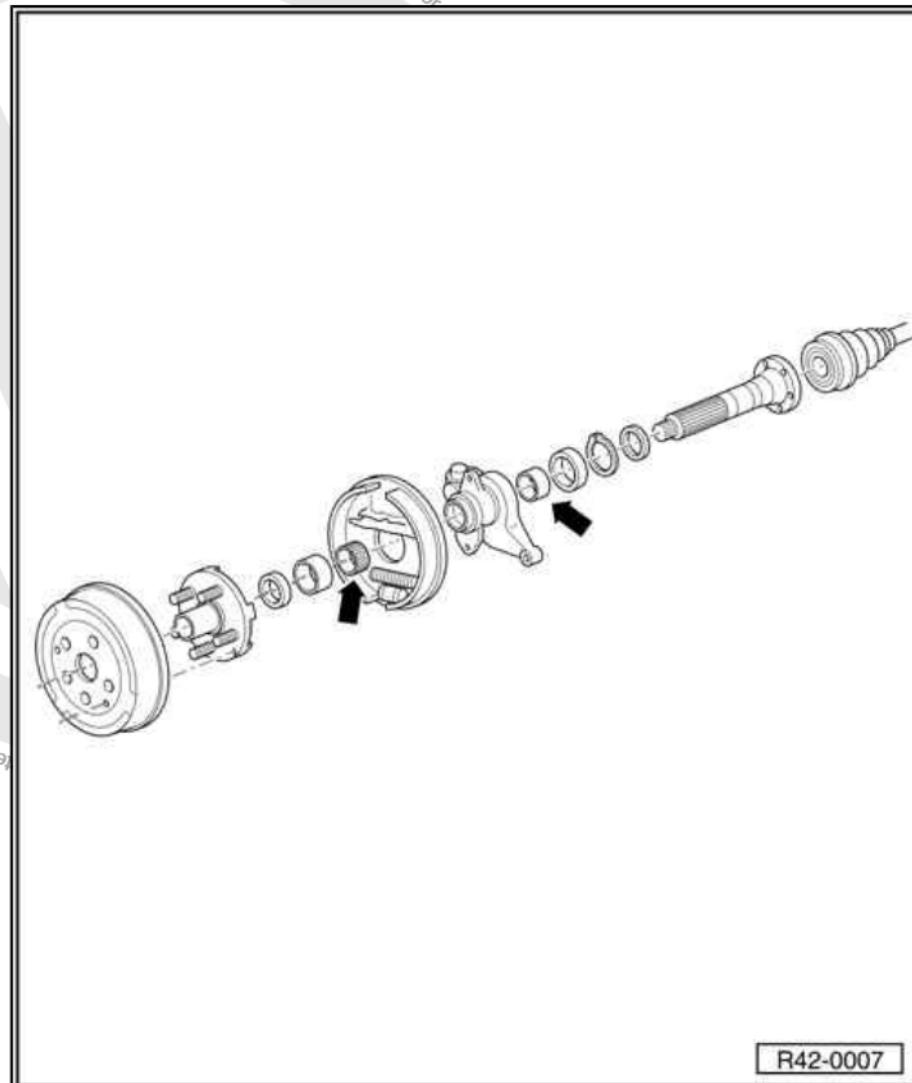


R42-0008



## 20.6 Rear wheel bearing - lubricate

- Kombi
- Product used
- Multi-purpose grease  
⇒ [page 10](#)





## 21 Repair Group - 46 - Brakes - Mechanical systems



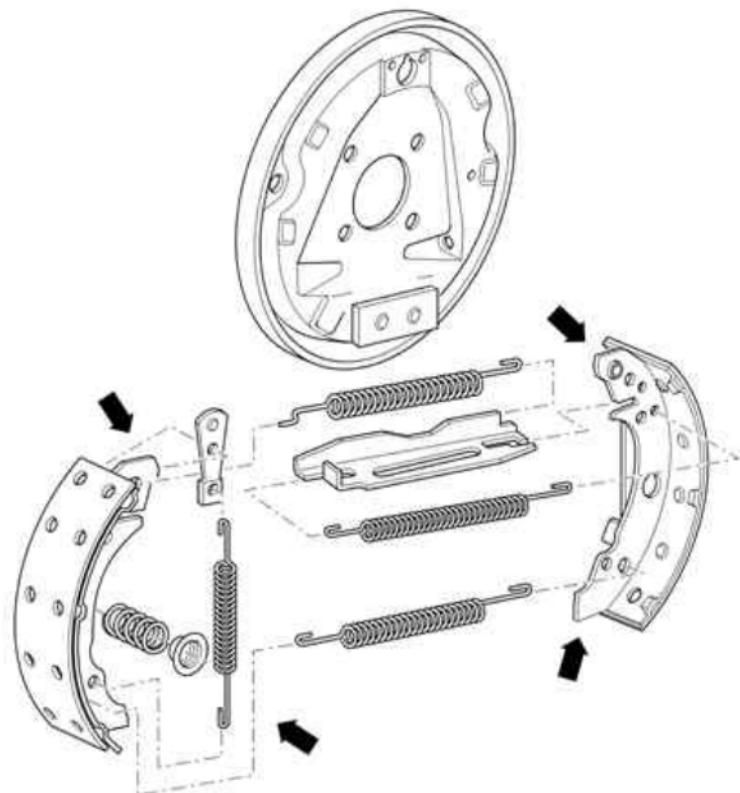
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 21.1 Rear wheel brake shoe ends - lubricate

- Gol, Parati, Saveiro, Santana and Kombi
- Product used
- Complex grease [⇒ page 10](#)

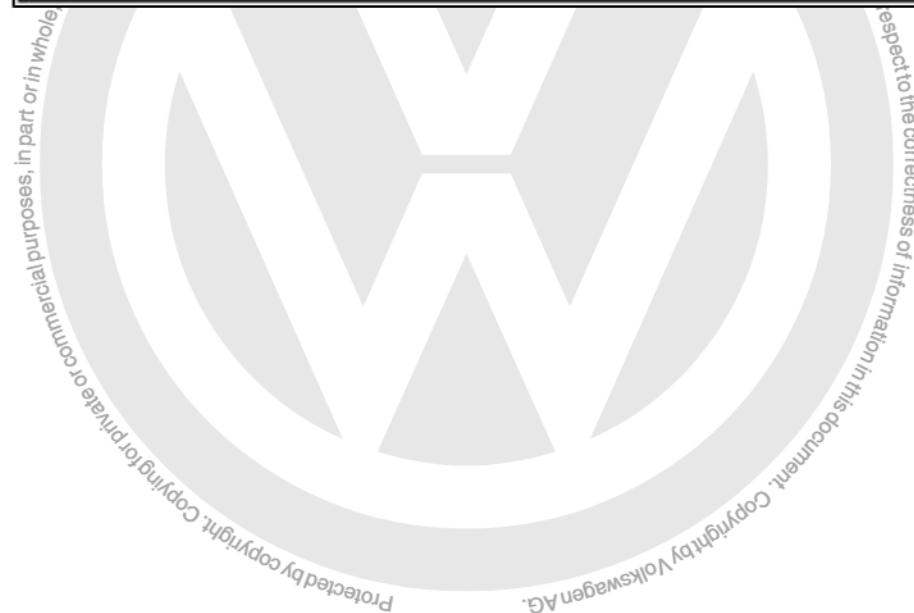
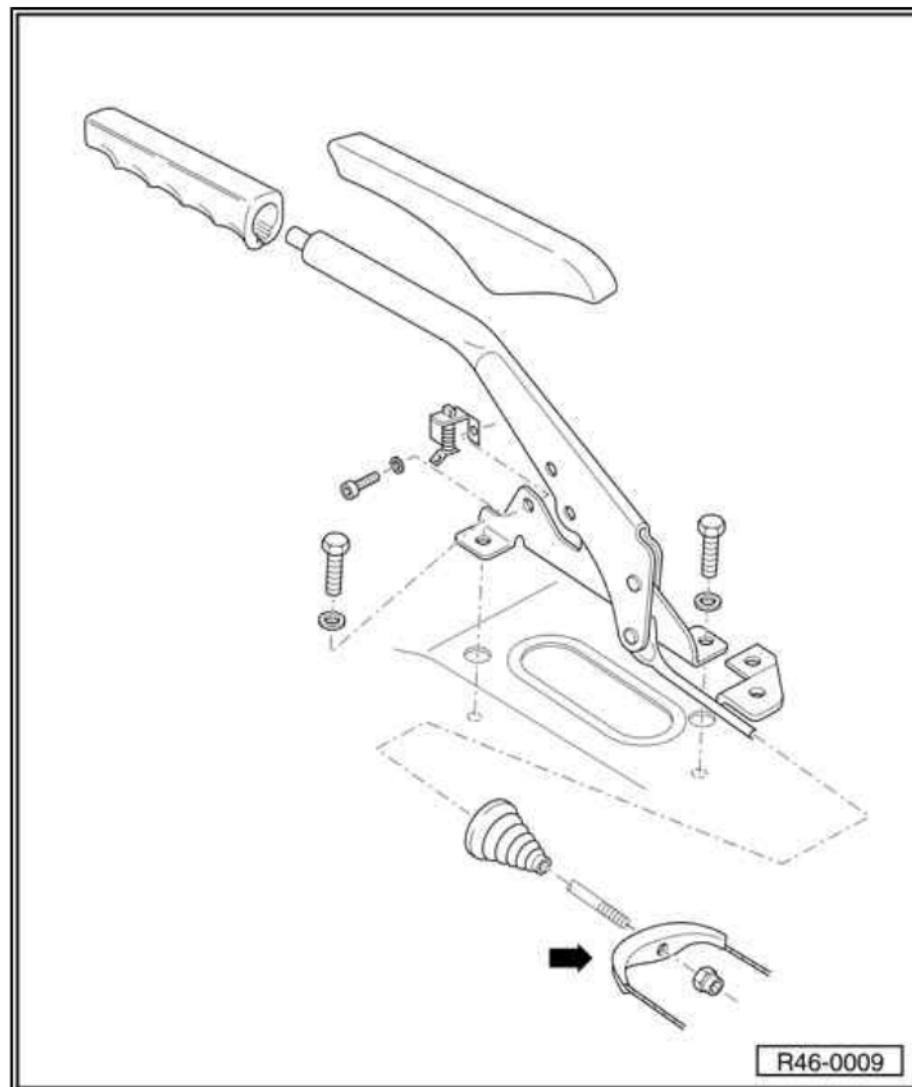


R34-0063



## 21.2 Handbrake cable terminal - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Lubricating paste for constant velocity joints [⇒ page 13](#)



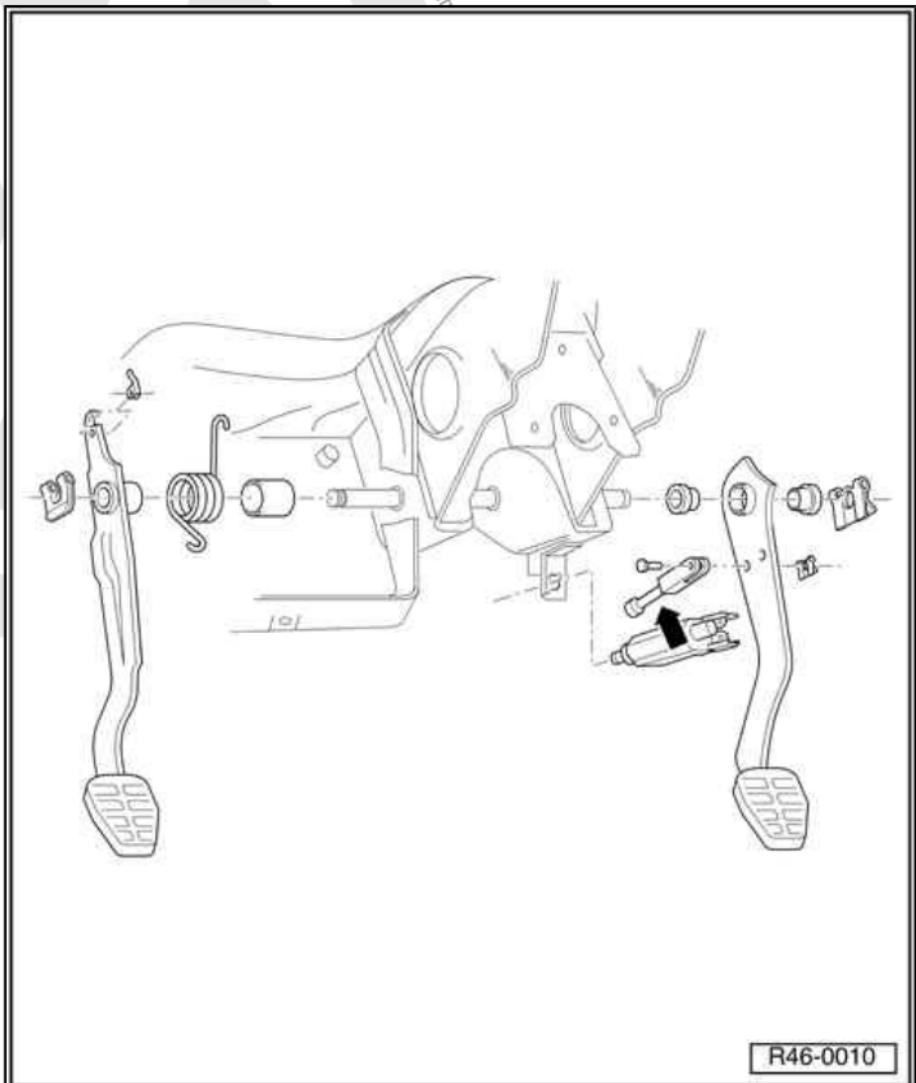


## 21.3 Brake pedal safety pin - lubricate

- Gol, Parati, Saveiro and Santana

Product used

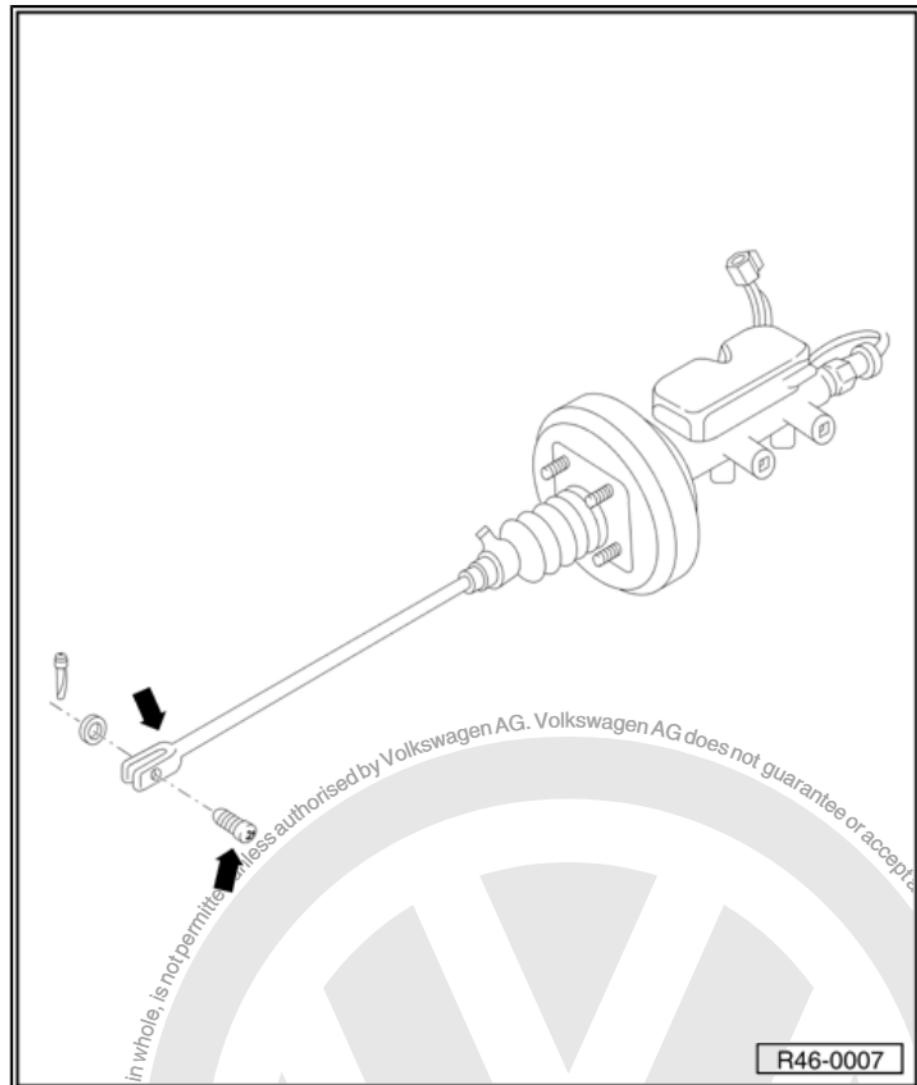
- White lubricating grease  
[⇒ page 20](#)





## 21.4 Securing pin for the operating rod of the master cylinder plunger - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)





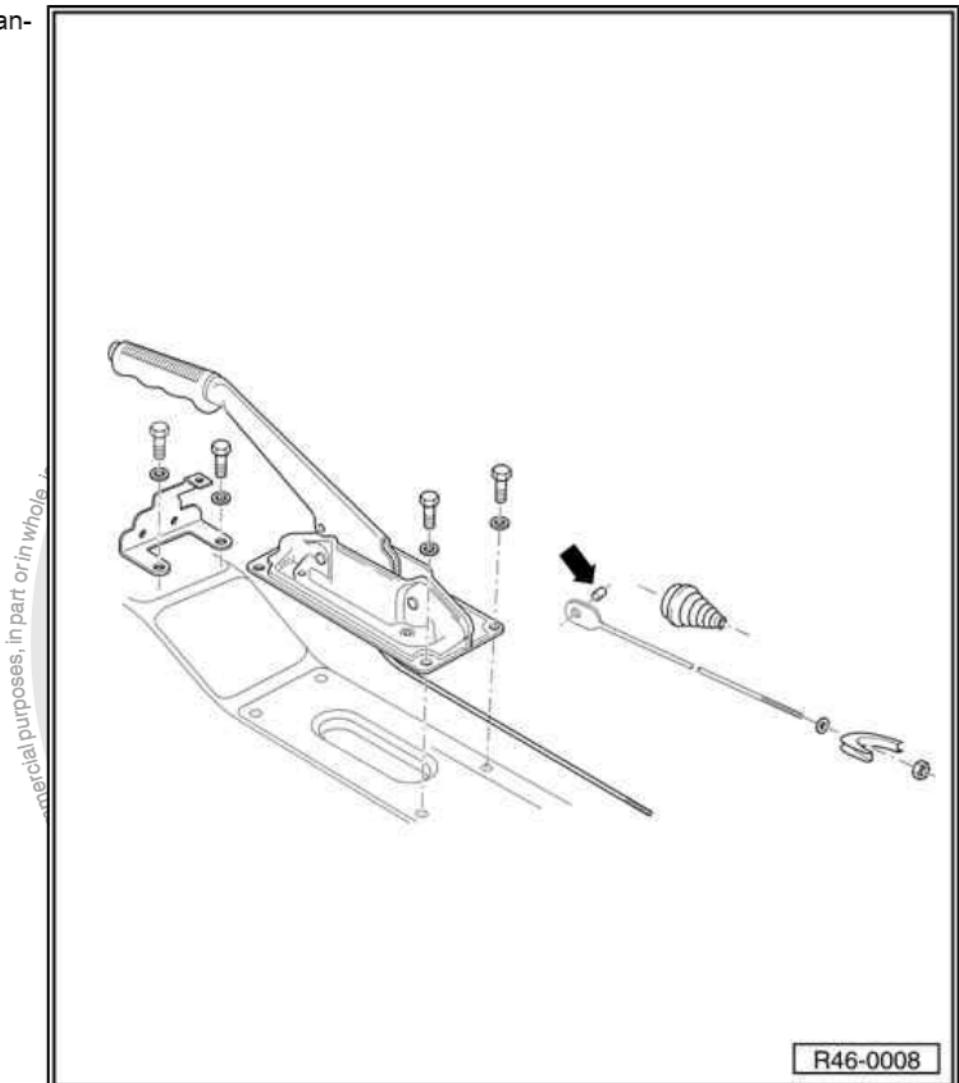
## 21.5 Securing pin of the handbrake lever - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

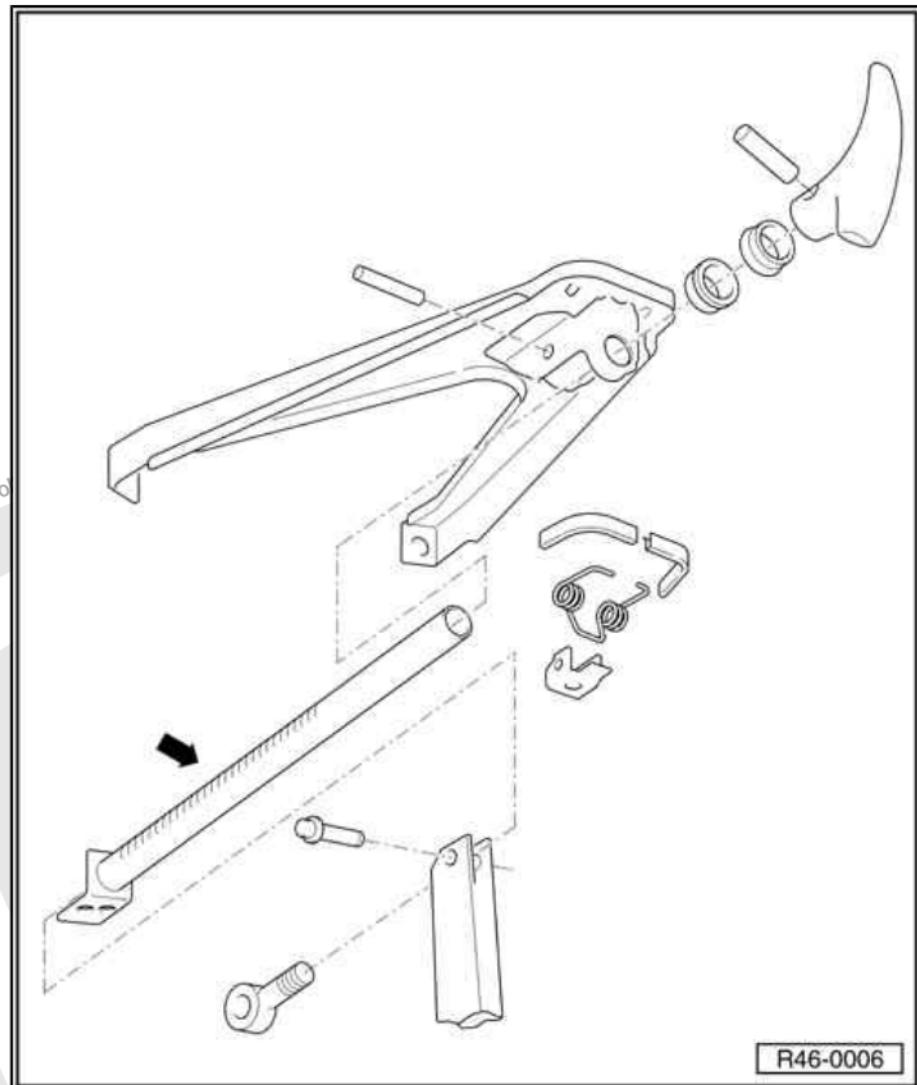
[⇒ page 10](#)





## 21.6 Handbrake ratchet - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 10](#)





## 22 Repair Group - 47 - Brakes - Brake servo hydraulic system



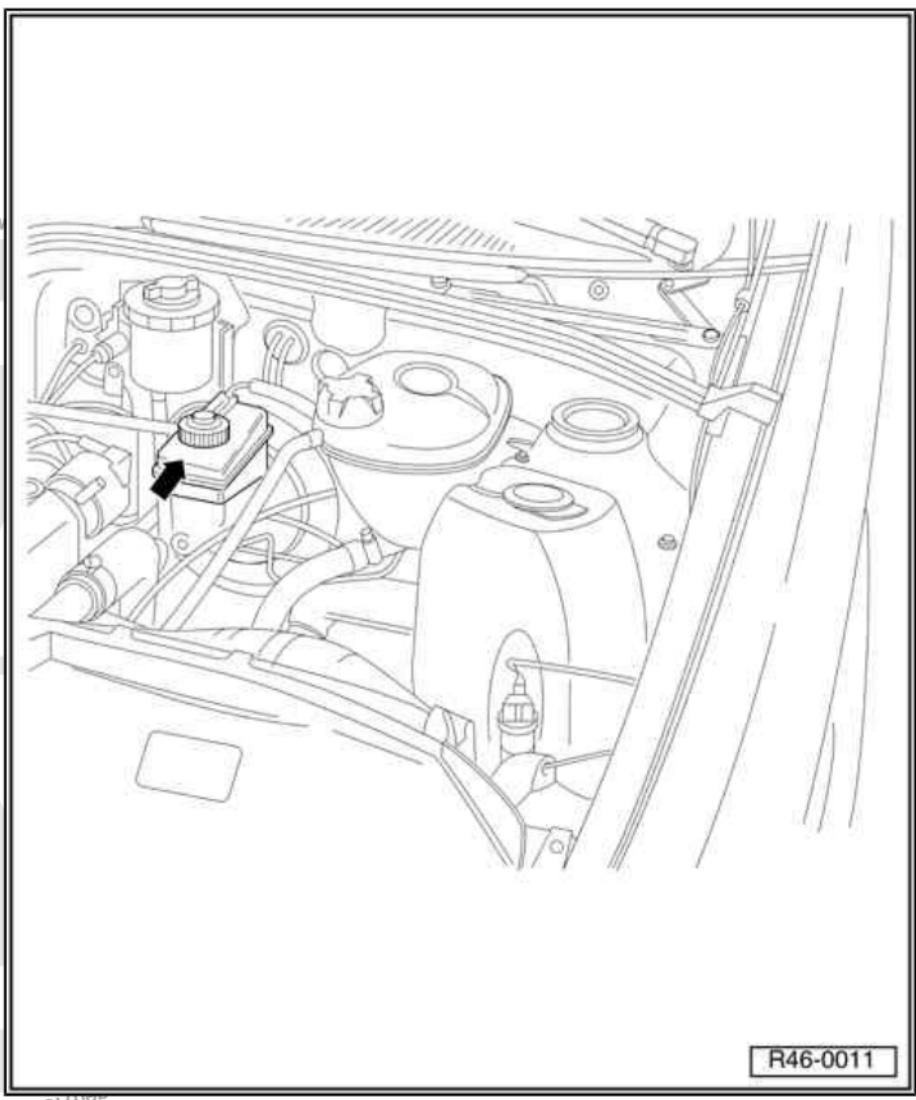
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 22.1 Brake system - fill / top up

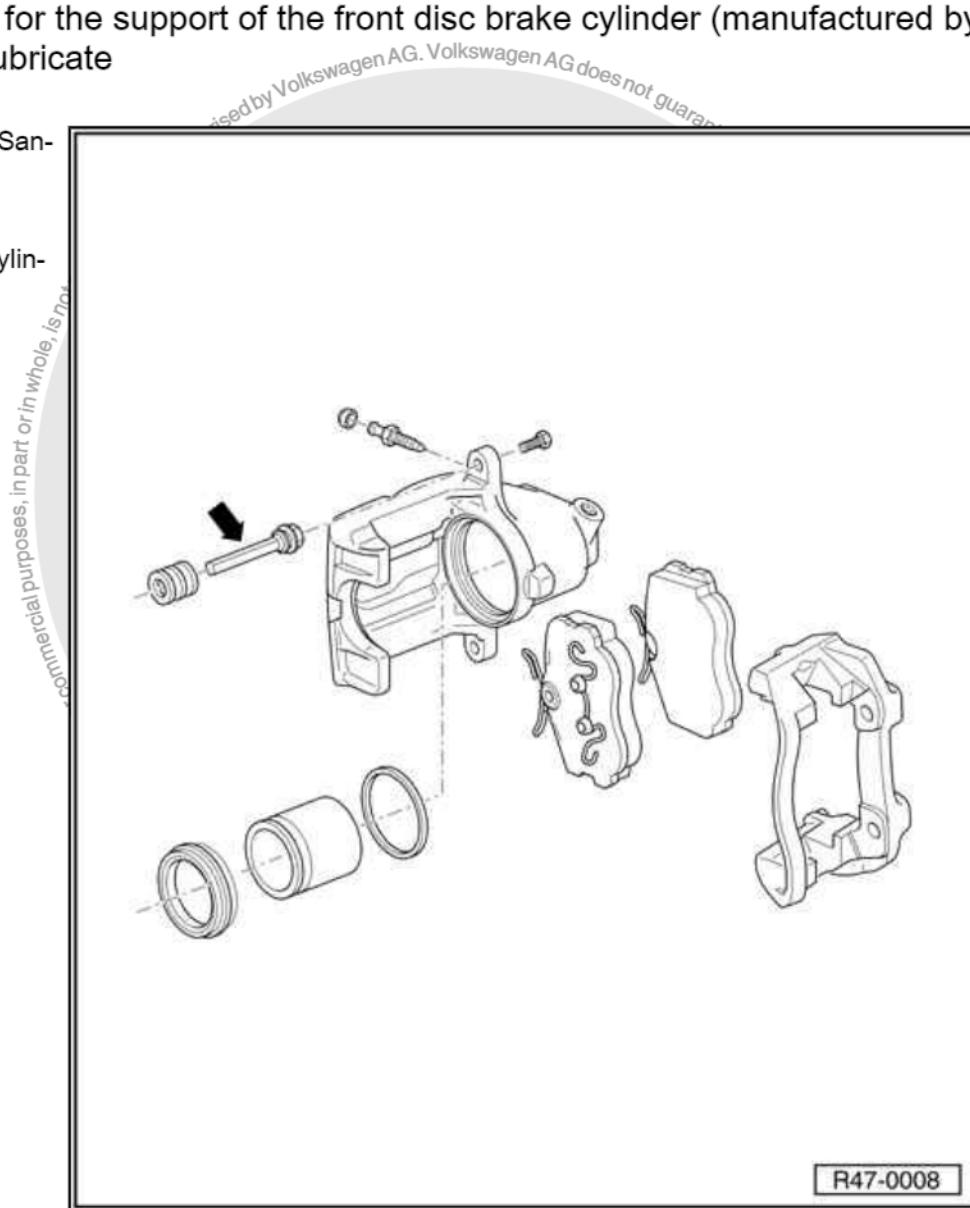
- All
- Product used
- Hydraulic brake fluid (DOT 4)  
[⇒ page 9](#)





## 22.2 Guide pin for the support of the front disc brake cylinder (manufactured by Varga) - lubricate

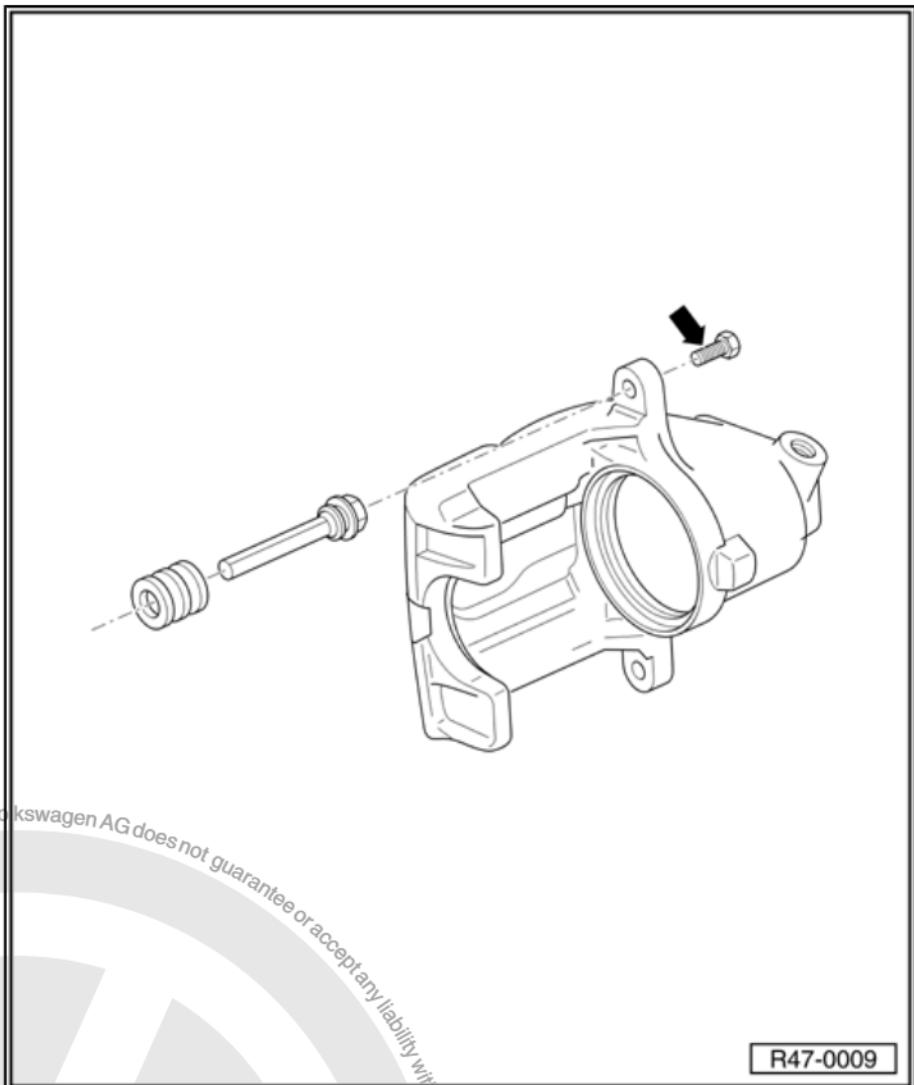
- Gol, Parati, Saveiro and Santana
- Product used
- Grease for front wheel cylinder support guide pin  
⇒ [page 10](#)





## 22.3 Fastening screw for the front disc brake cylinder housing - lock

- Gol, Parati, Saveiro and Santana with Vargas brake system
- Product used
- Medium torque locking adhesive [⇒ page 7](#)



R47-0009



## 23 Repair Group - 48 - Steering



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 23.1 Oil reservoir for the power steering system - Fill / top up oil level

- Santana <sup>(1)</sup>, Gol <sup>(2)</sup>, Parati, Saveiro, Polo <sup>(3)</sup> and Fox <sup>(3)</sup>

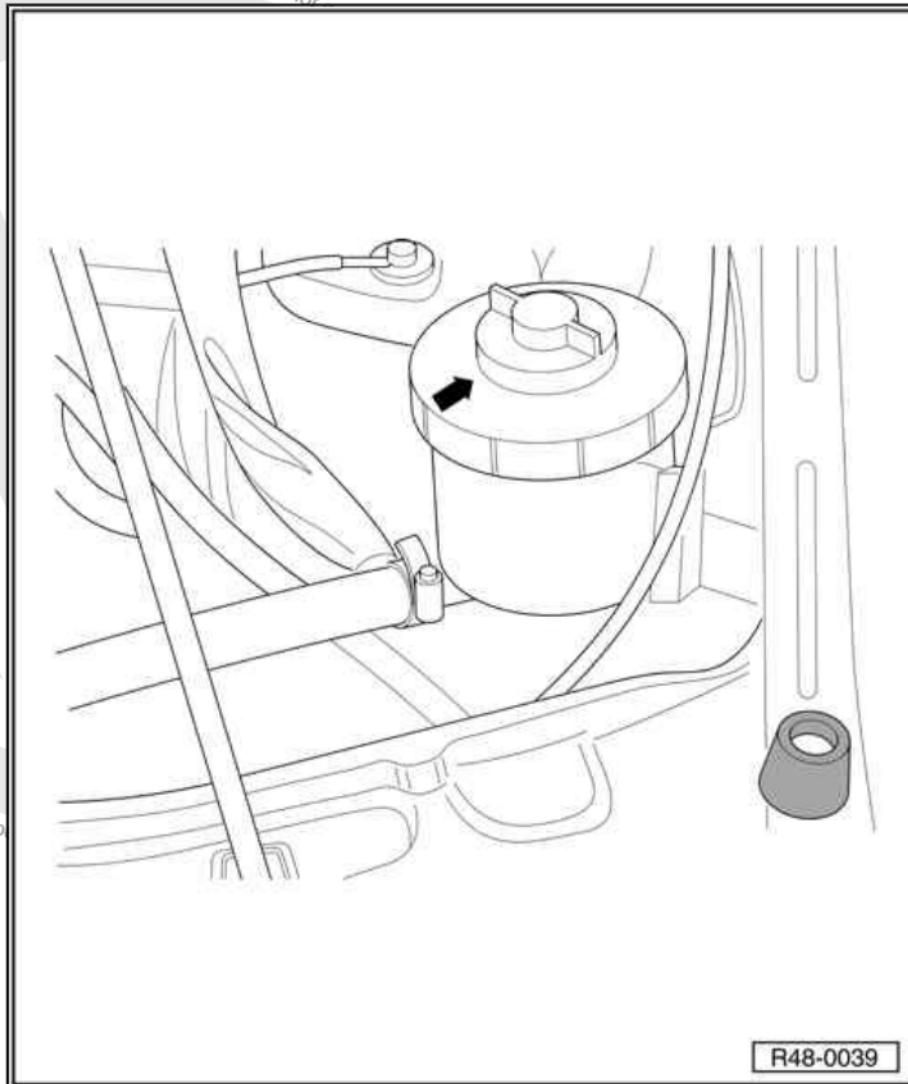
<sup>(1)</sup>Chassis numbers up to SP055380, and from 2P006394 onwards

<sup>(2)</sup>Except exports to Russia and Kazakhstan

<sup>(3)</sup>Without hydraulic power steering

- Product used

- Power steering oil - 325 029 9011- [⇒ page 19](#)



R48-0039



## 23.2 Oil reservoir for the power steering system - fill / top up oil level

- Santana <sup>(1)</sup>, Gol <sup>(2)</sup> , Golf, Passat, Polo Classic, Fox <sup>(3)</sup>, Polo <sup>(3)</sup> and Saveiro <sup>(4)</sup>

<sup>(1)</sup>From chassis number SP055381, to chassis number 2P006393.

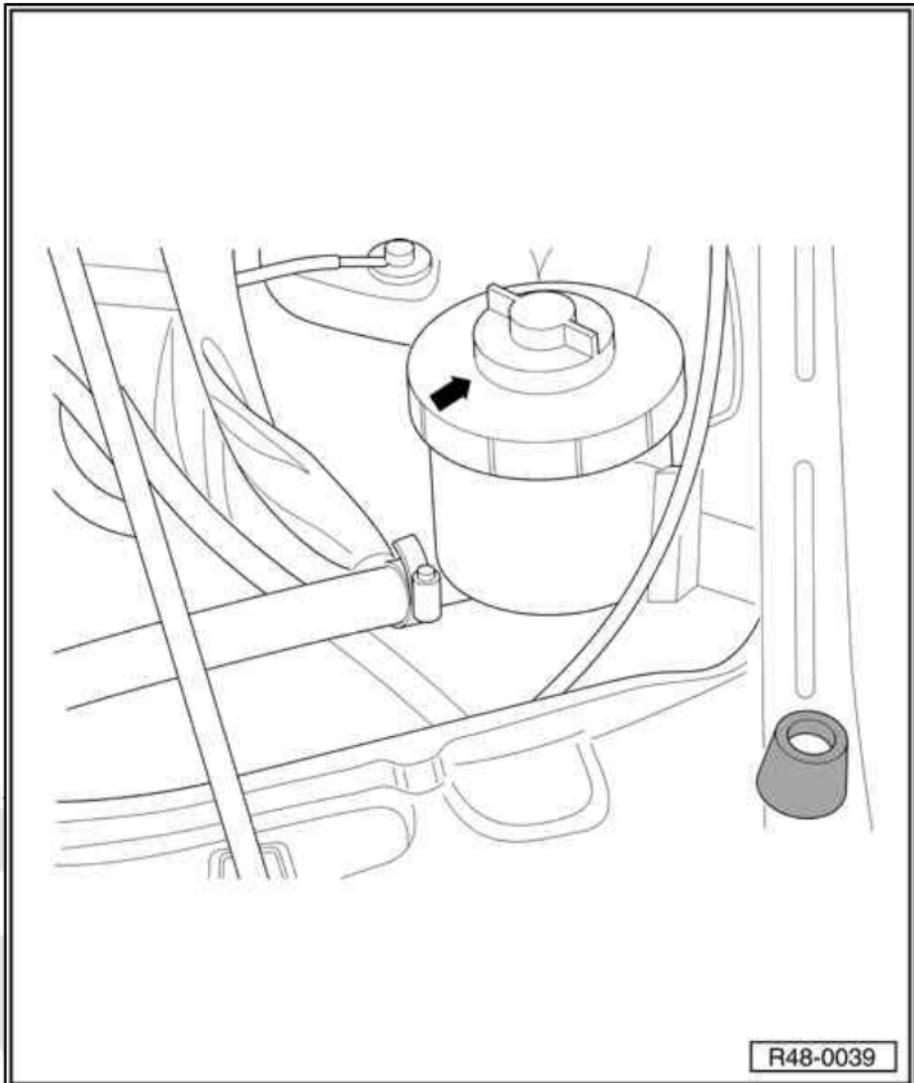
<sup>(2)</sup> Export to Russia and Kazakhstan.

<sup>(3)</sup>With electric power steering.

<sup>(4)</sup>As from chassis number 24000001 (made in Curitiba).

- Product used

- Power steering oil - G 004 000 M2- [page 19](#)



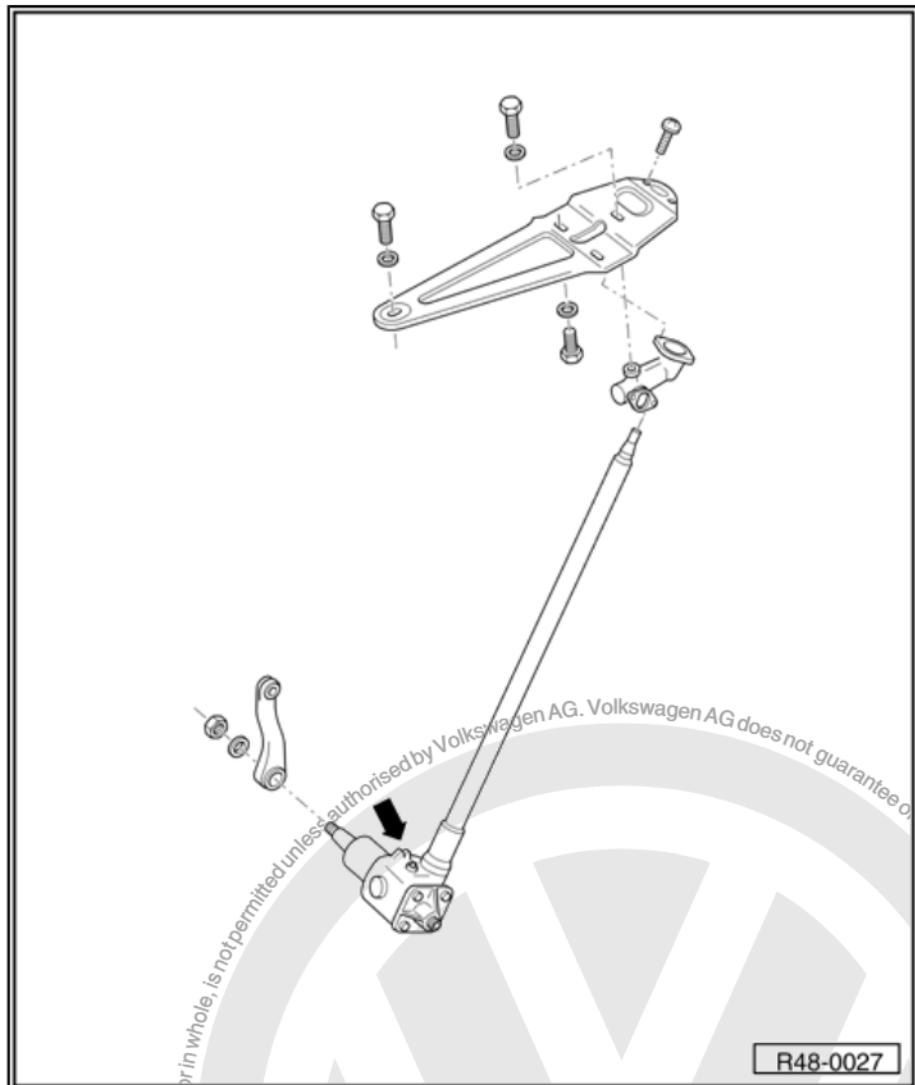
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## 23.3 Steering box - Fill / top up level

- Kombi
- Product used
- Steering box oil - SAE 90, MIL-L-2105B, API-GL5  
[⇒ page 17](#)



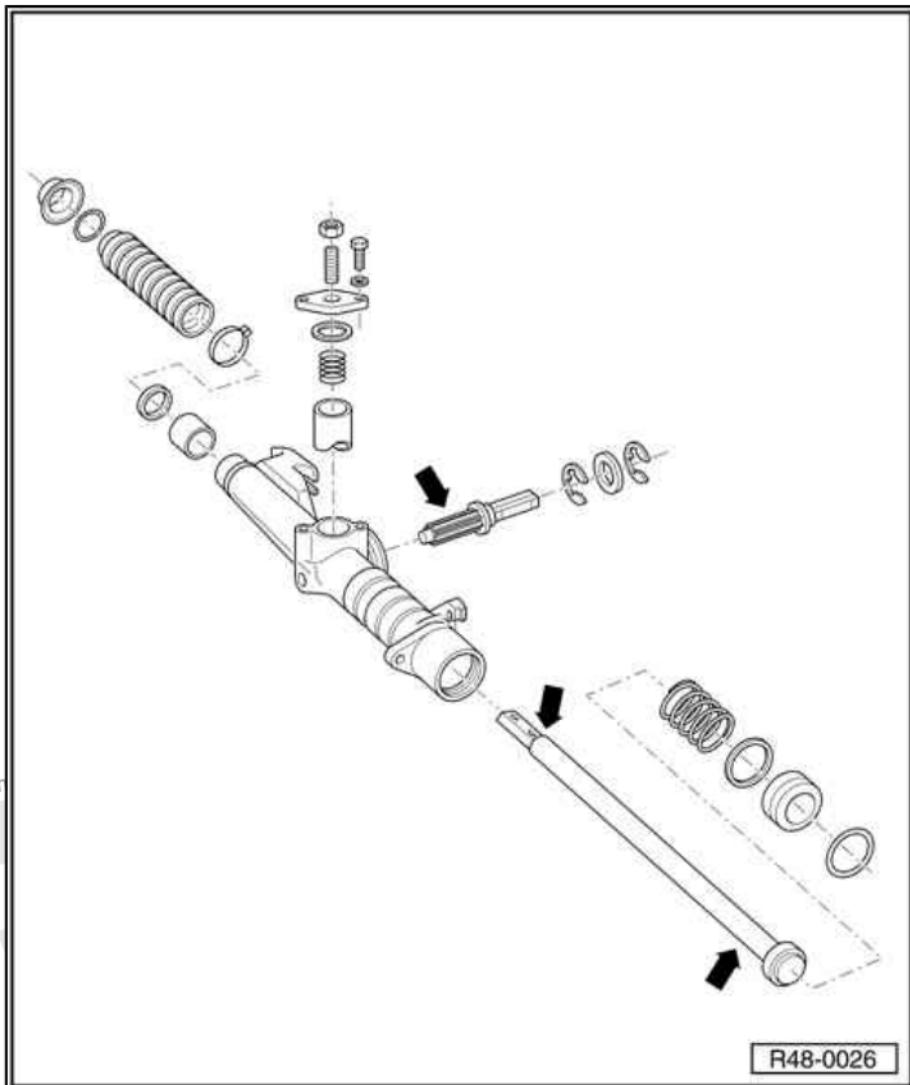


## 23.4 Steering box mechanism - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Semi-fluid grease [⇒ page 9](#)



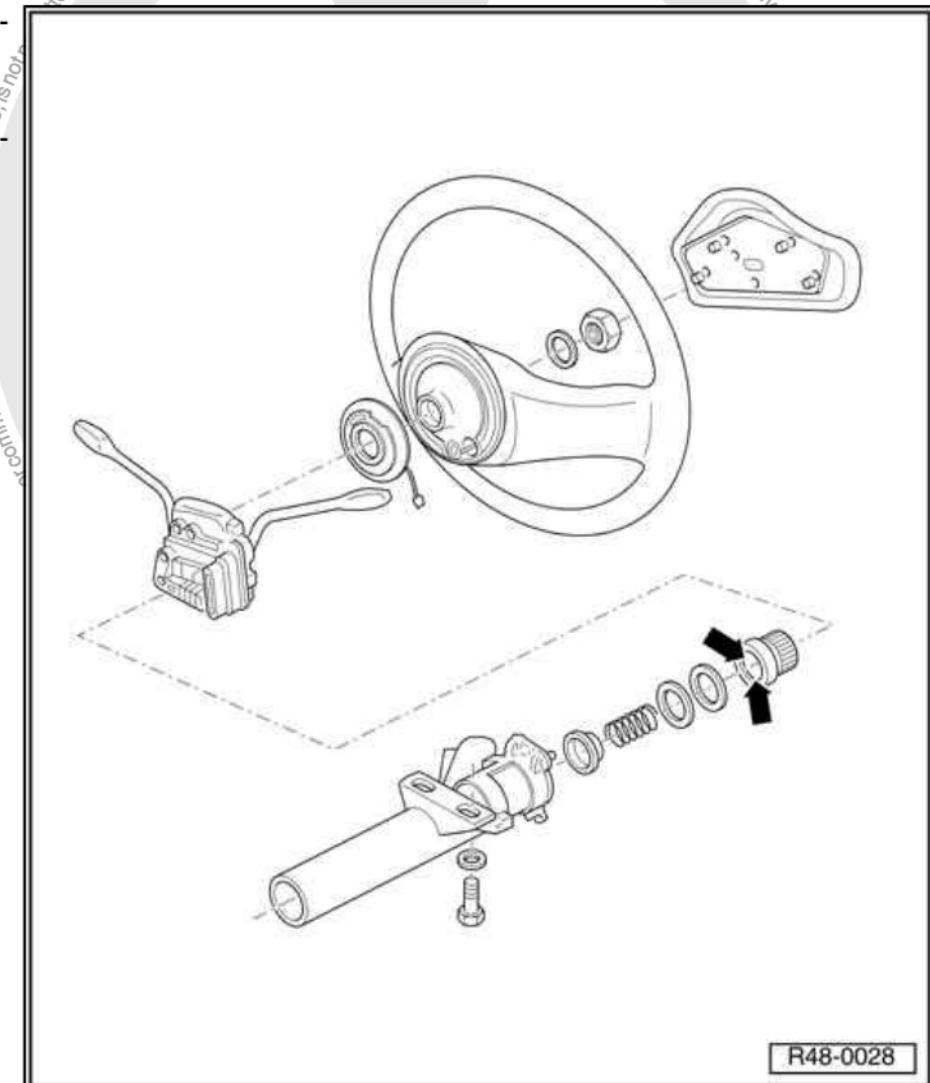
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## 23.5 Adapter (sleeve) for the upper steering shaft - lock

- Gol, Parati, Saveiro and Santana
- Product used
- Medium torque locking adhesive [⇒ page 7](#)



R48-0028



## 24 Repair Group - 53 - Body - Rear section



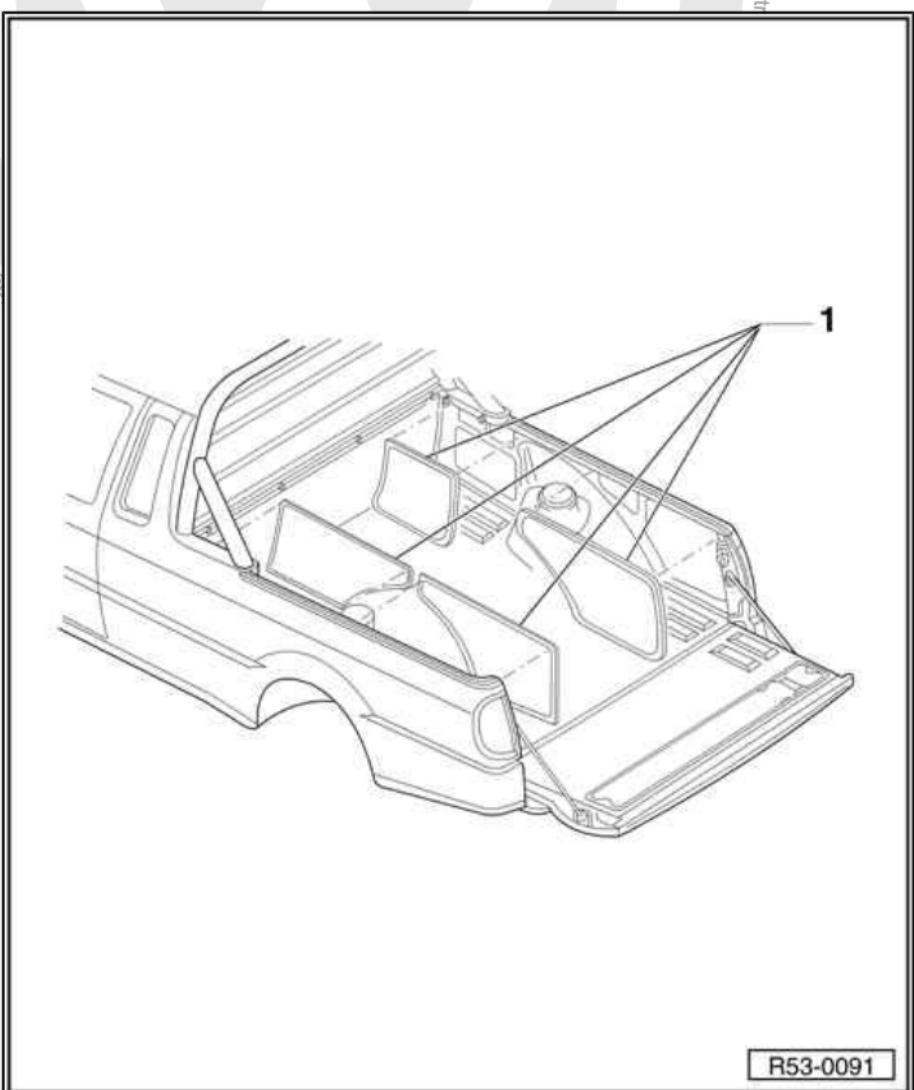
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 24.1 Bucket sealing membrane - glue

- Saveiro
- Product used
- Transferable adhesive tape  
[⇒ page 8](#)



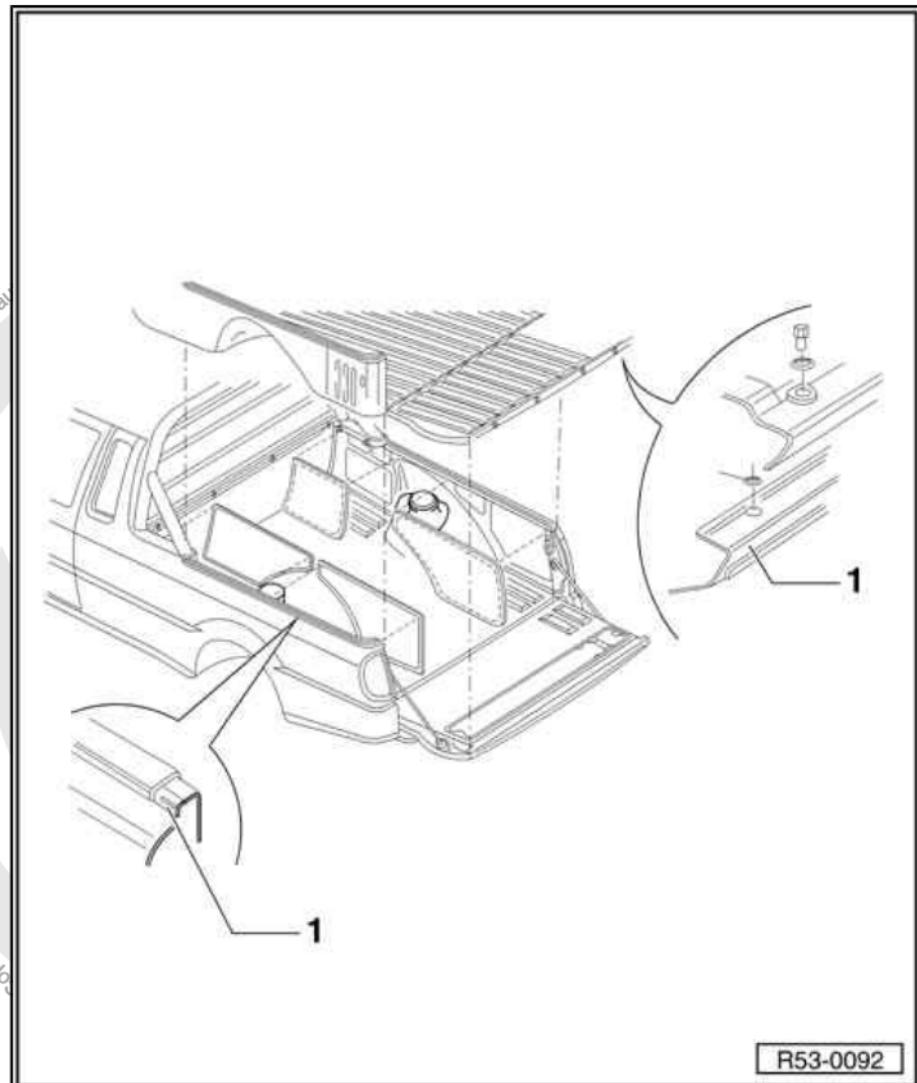


## 24.2 Rear side panel - protect the paint

- Saveiro
- Product used
- Polyurethane adhesive tape  
⇒ page 8

- 1 - Polyurethane adhesive tape

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R53-0092



## 25 Repair Group - 55 - Covers



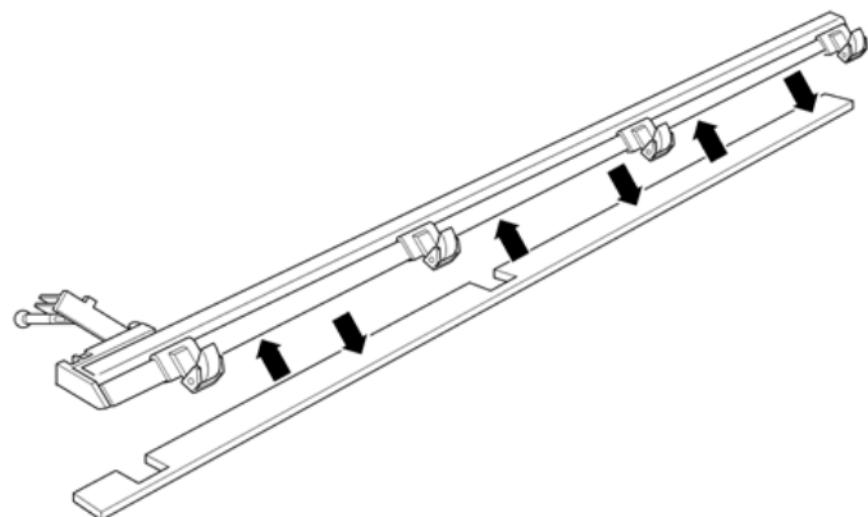
### WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals".

### 25.1 Bucket protective cover longitudinal member - glue the finishing

- Saveiro
- Product used
- Adhesive for finishing and lining [⇒ page 6](#)

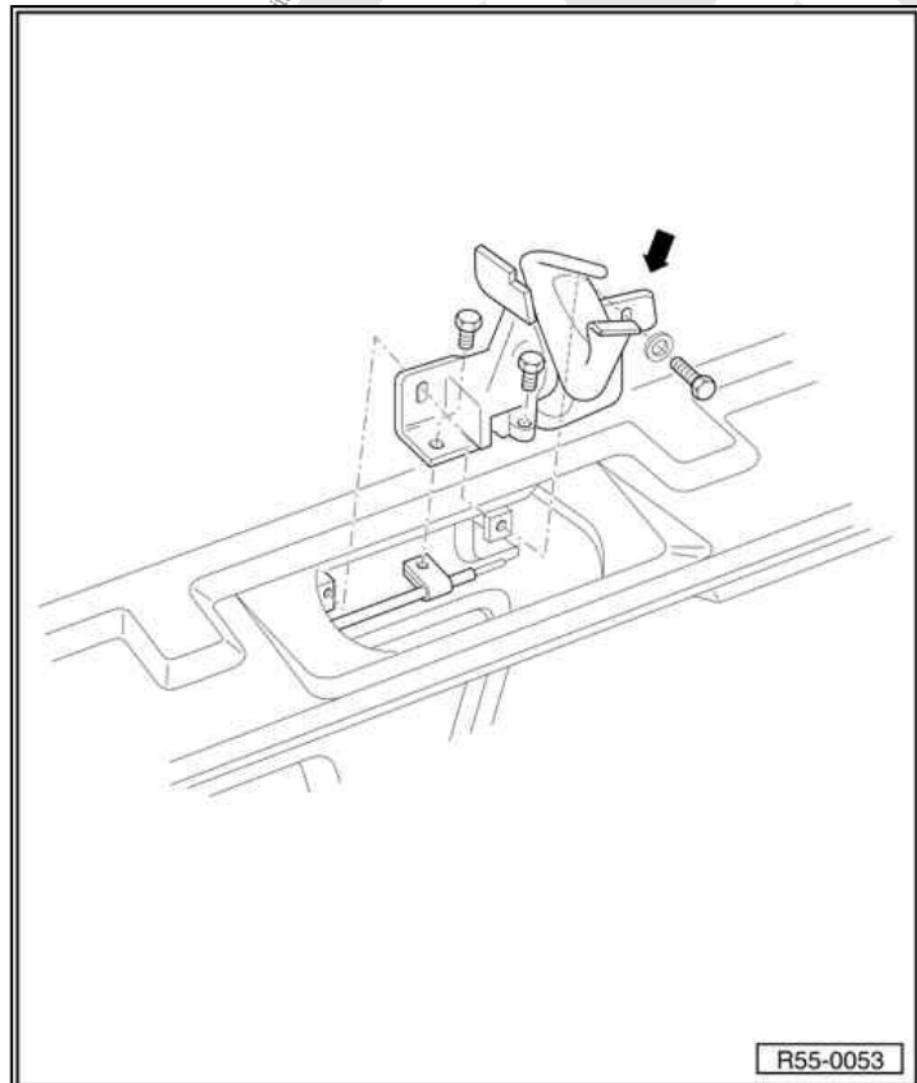


R55-0191



## 25.2 Lower latch of the bonnet - lubricate

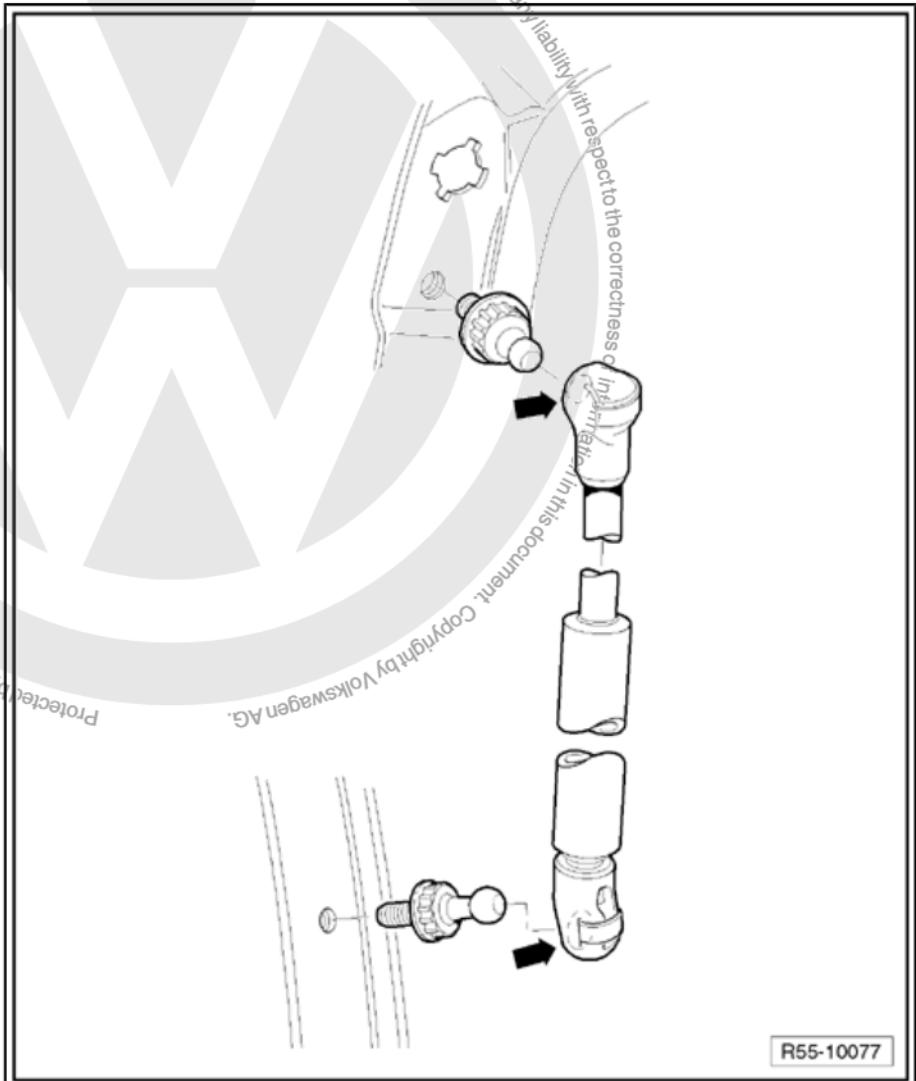
- All (except Kombi)
- Product used
- Multi-purpose grease  
⇒ [page 9](#)





## 25.3 Damper eyelet for the rear cover - lubricate

- All
- Product used
- Lubricating grease  
[⇒ page 10](#)



R55-10077



## 26 Repair Group - 57 - Front doors / components / central lock



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 26.1 Front door lock - lubricate

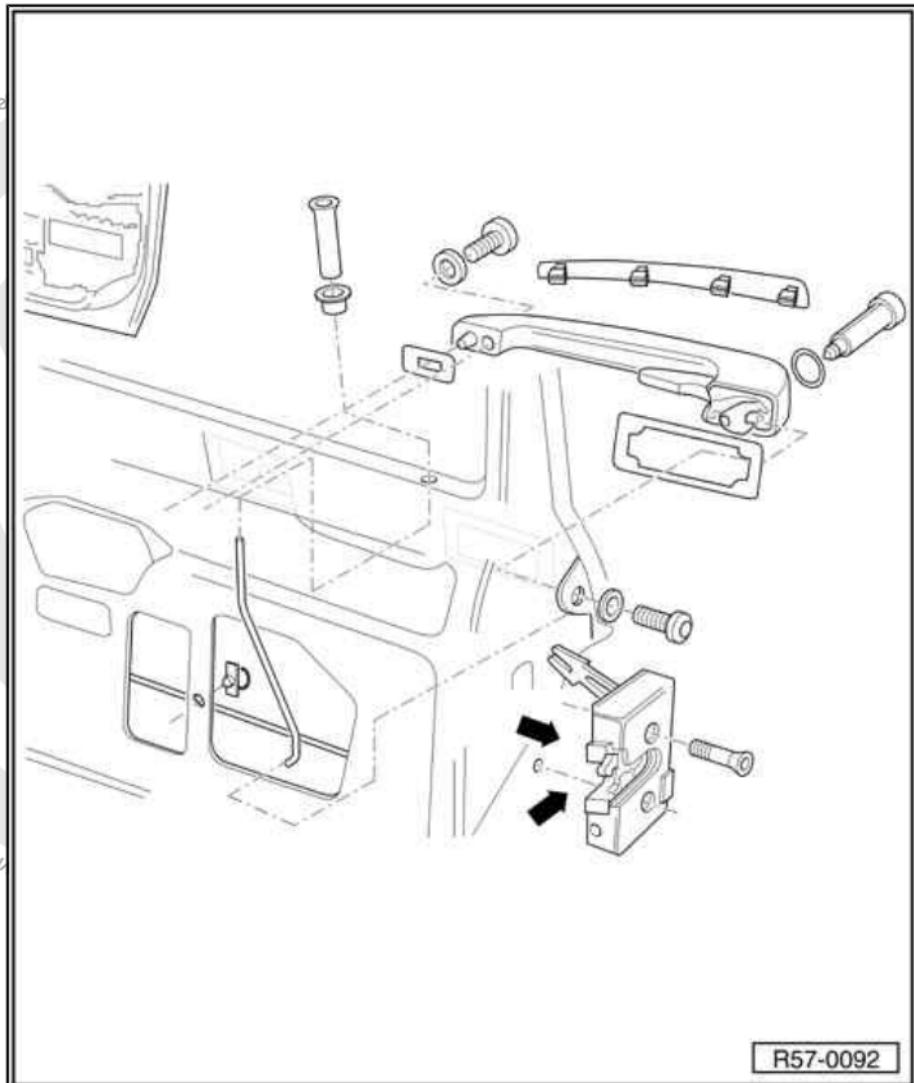
- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

[⇒ page 9](#)

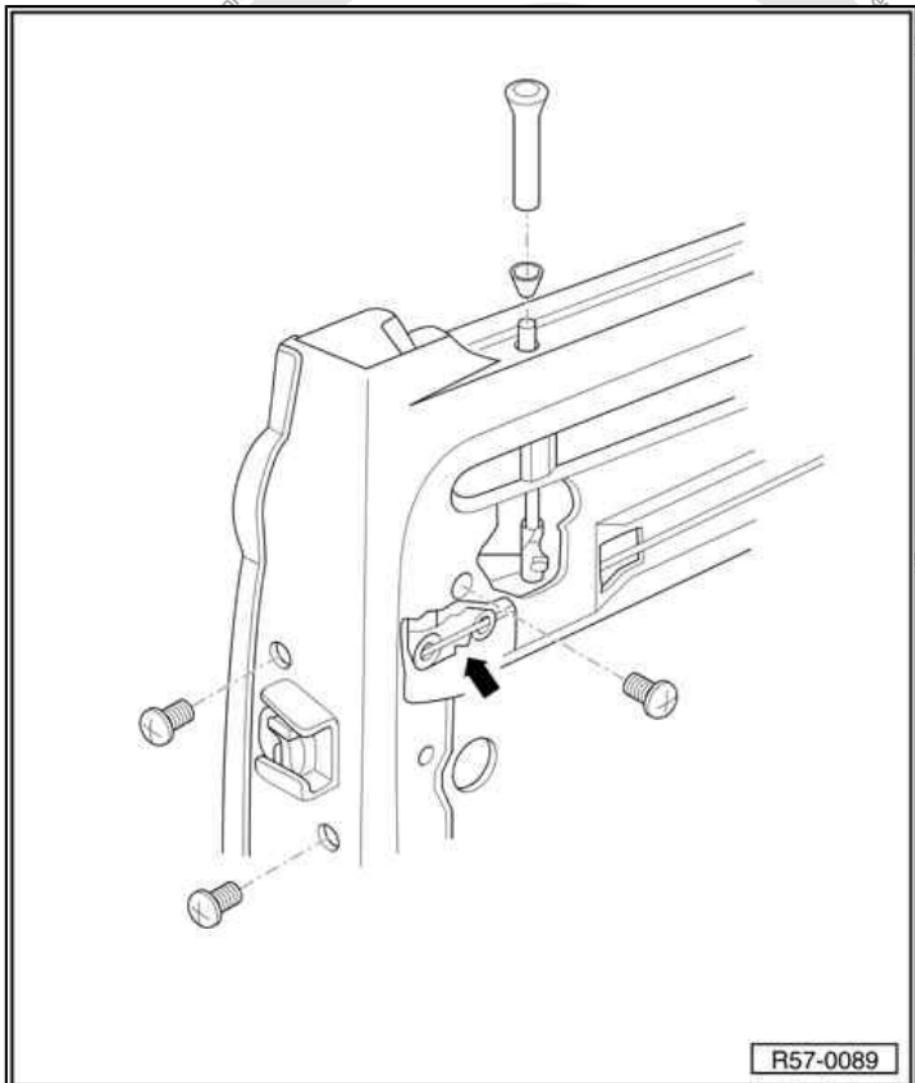
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## 26.2 Lock drive rod - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)

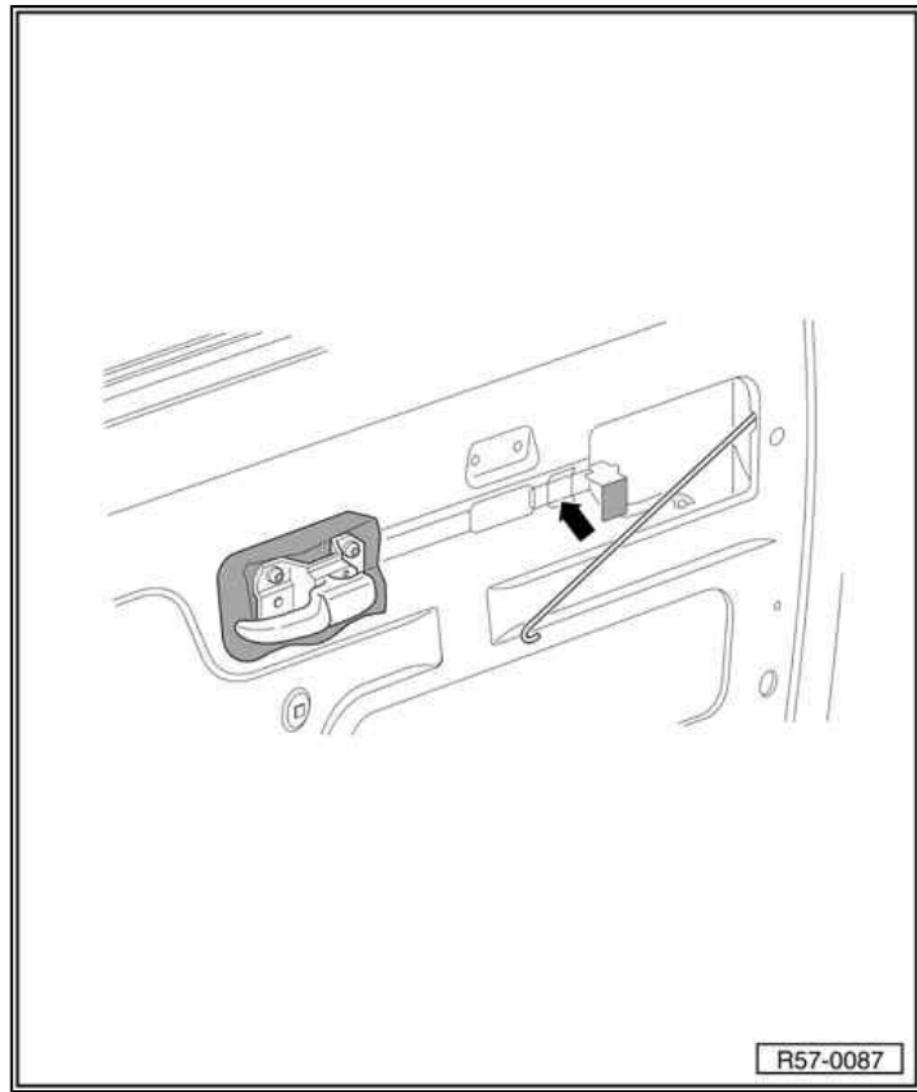


R57-0089



## 26.3 Noise insulation for lock operating rod - glue

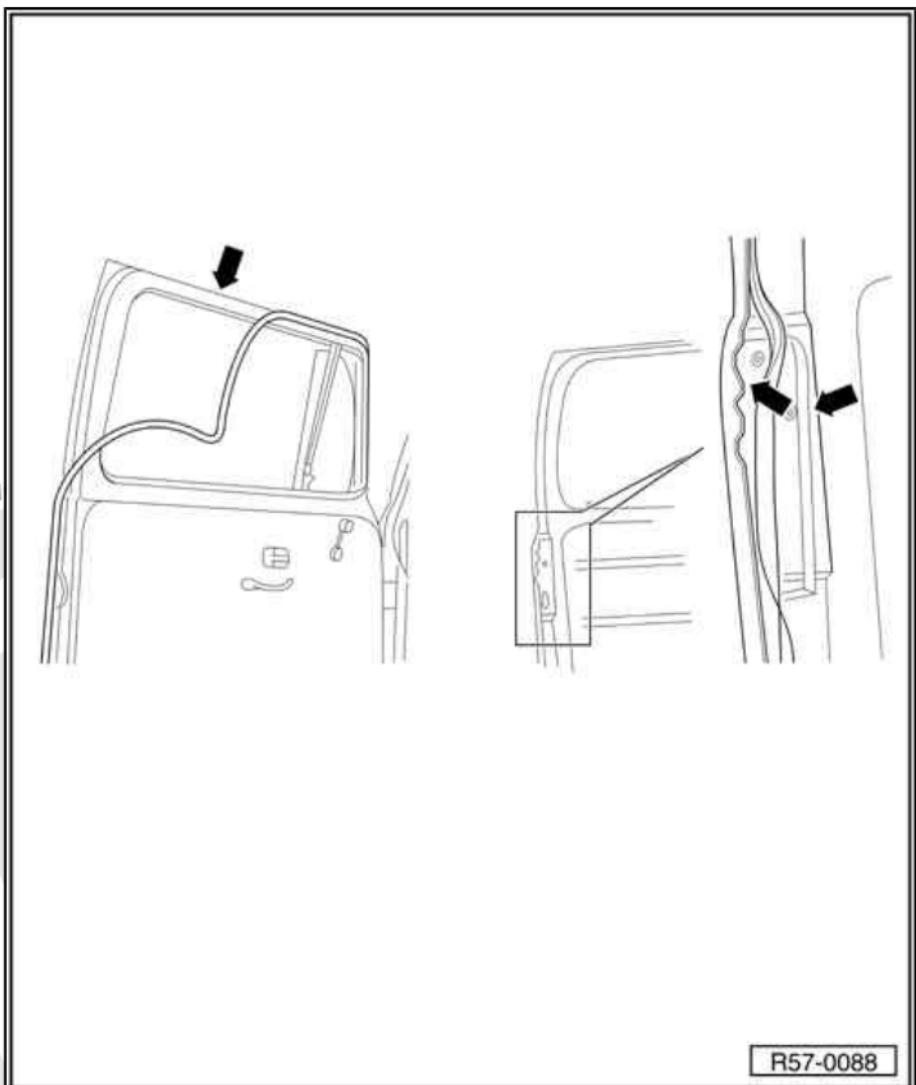
- All (except vehicles with cable operation)
- Product used
- Adhesive for finishing and lining [⇒ page 6](#)





## 26.4 Inner door seal - glue

- Kombi
- Product used
- Adhesive for finishing and lining **⇒ page 6**



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## 27 Repair Group - 58 - Rear doors / components



### WARNING

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Observe the information in Chapter "Work Instructions for Handling Chemicals".

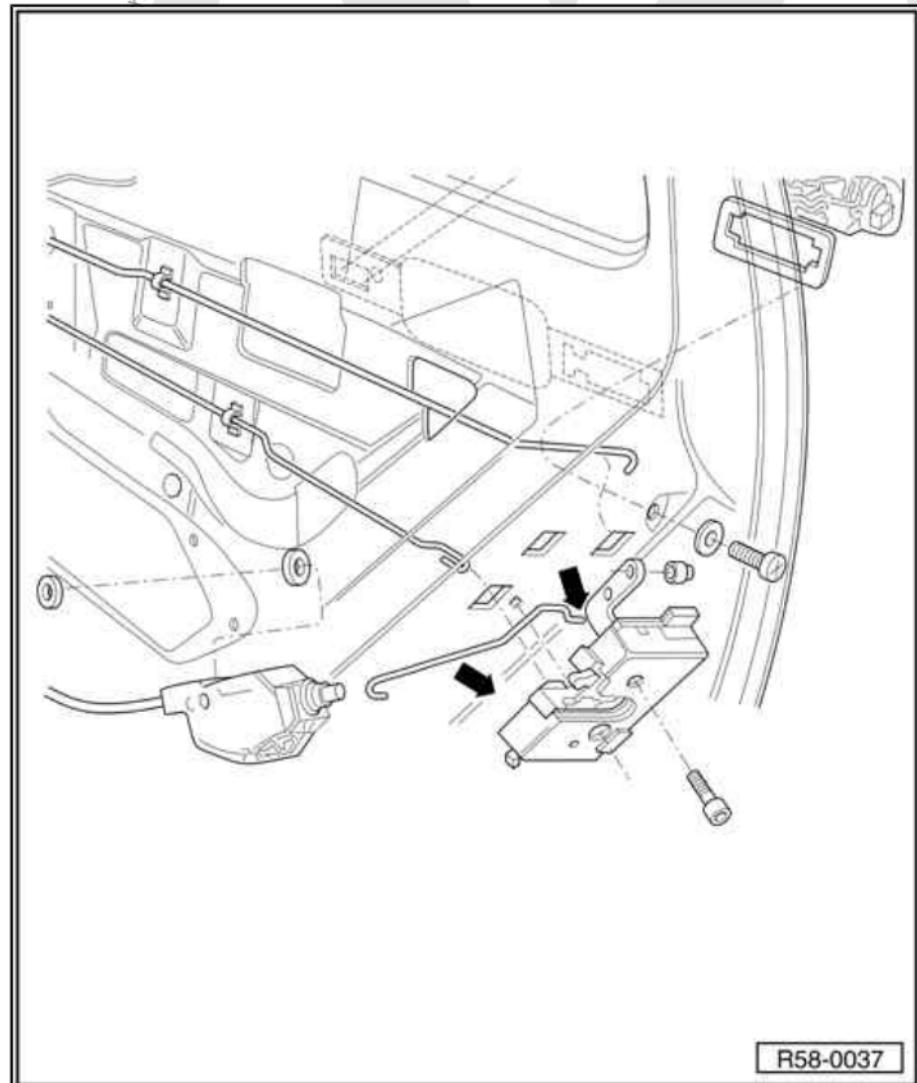
### 27.1 Rear door lock - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Multi-purpose grease

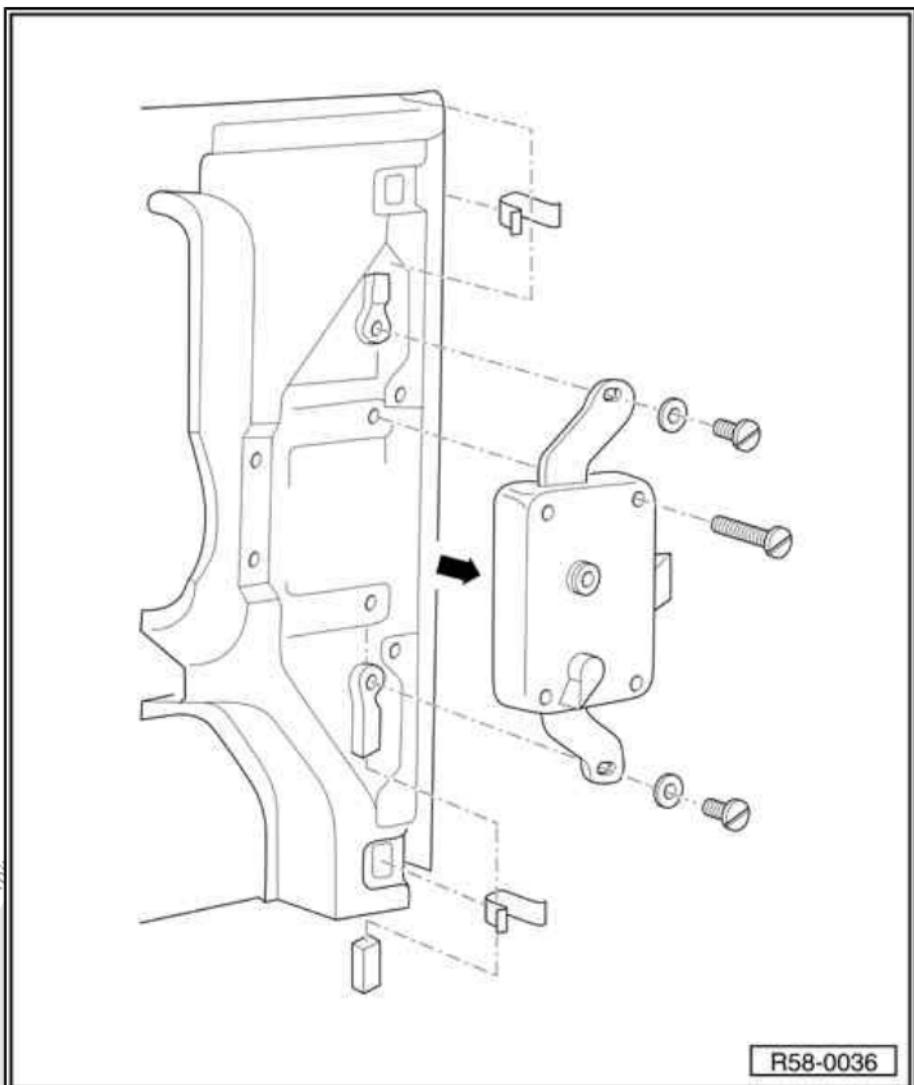
[≥ page 9](#)





## 27.2 Side door lock - lubricate

- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)



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## 28 Repair Group - 64 - Windscreens, windows, window mechanism



### WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

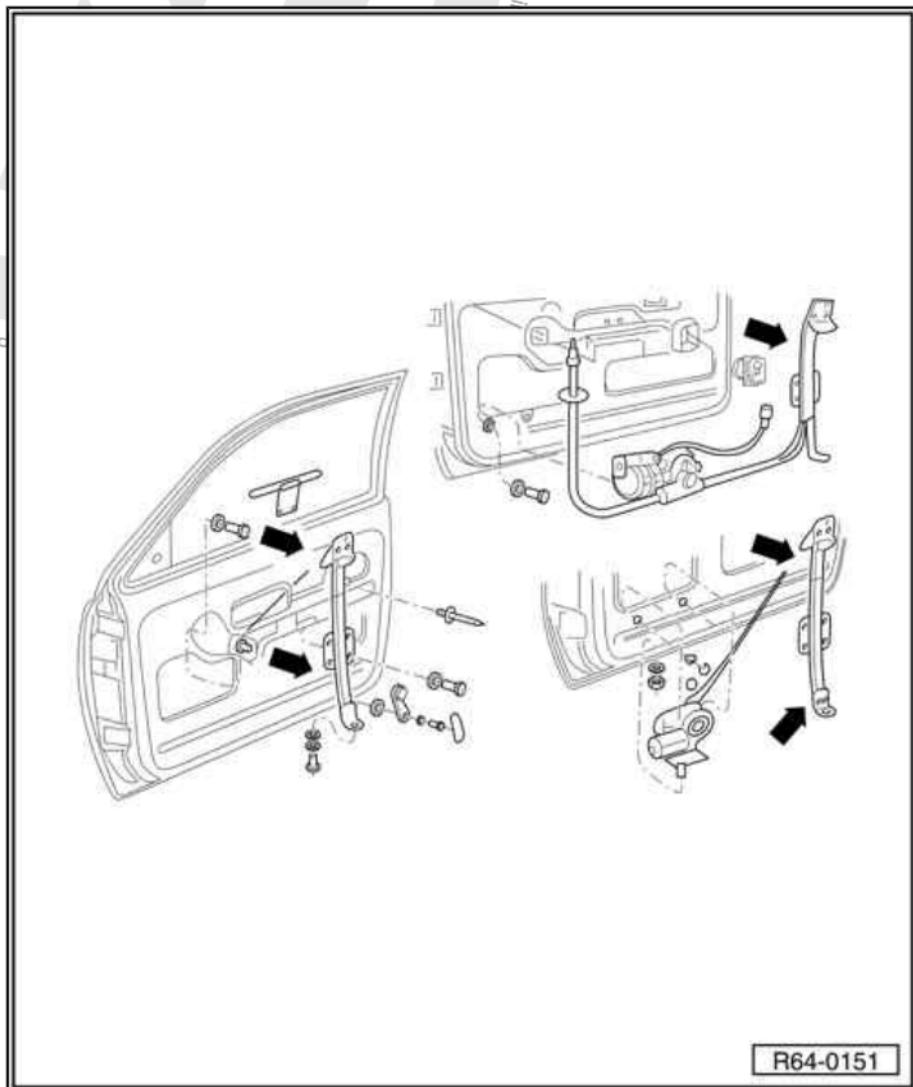
Observe the information in Chapter "Work Instructions for Handling Chemicals".

### 28.1 Door window activation mechanism - lubricate

- Gol, Parati, Saveiro and Santana

- Product used
- Multi-purpose grease

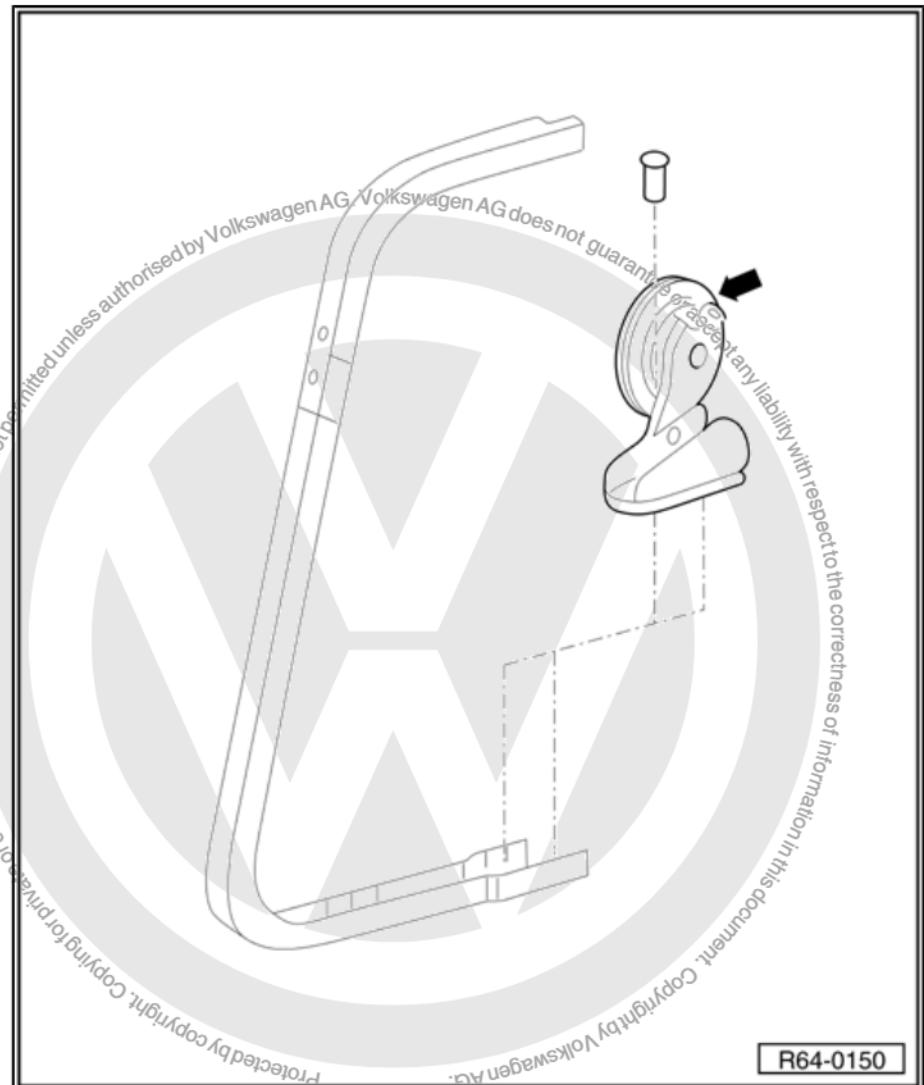
⇒ page 9





## 28.2 Vent window latch - lubricate

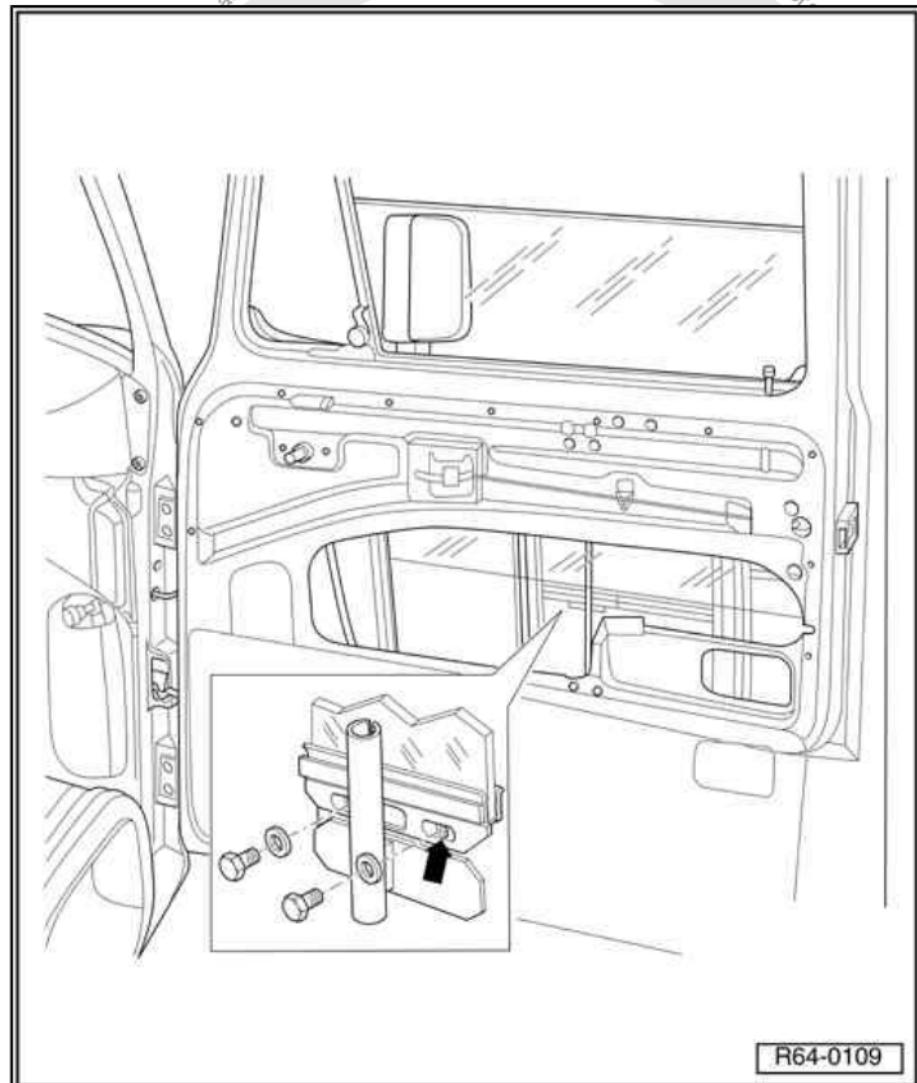
- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)





## 28.3 Front door window support - lubricate

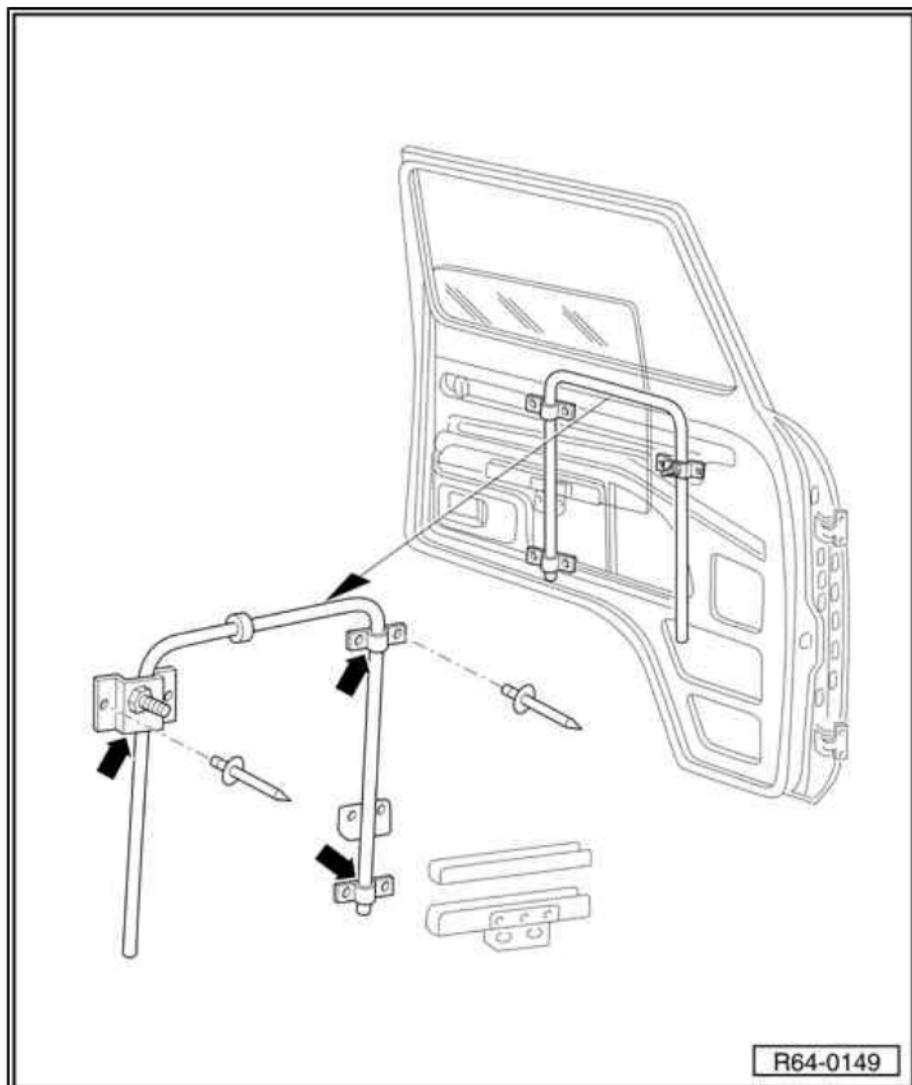
- Kombi
- Product used
- Multi-purpose grease  
⇒ [page 9](#)





## 28.4 Front door window activation mechanism - lubricate

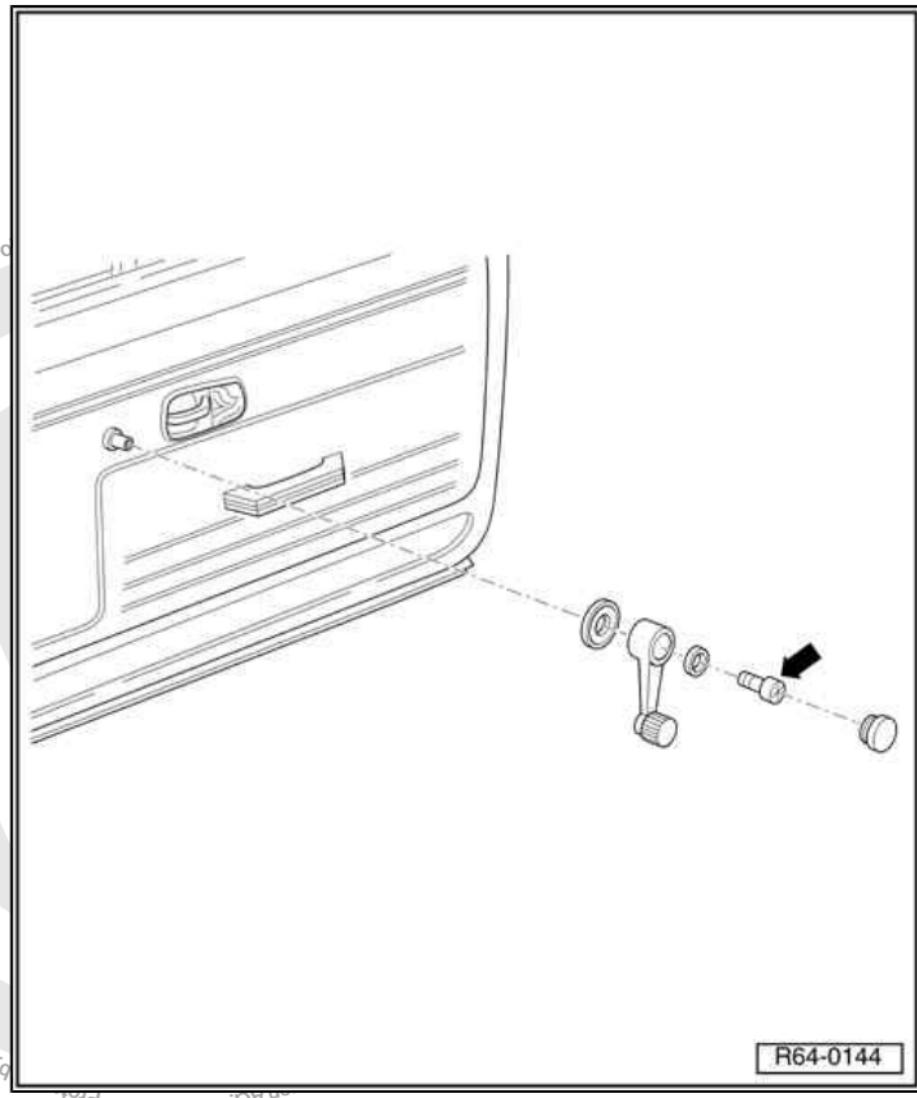
- Kombi
- Product used
- Multi-purpose grease  
[⇒ page 9](#)





## 28.5 Window crank fastening screw - lock

- All (fastened with screw)
- Product used
- Medium torque locking adhesive [⇒ page 7](#)





## 28.6 Windscreen, side window glass and rear window glass - glue

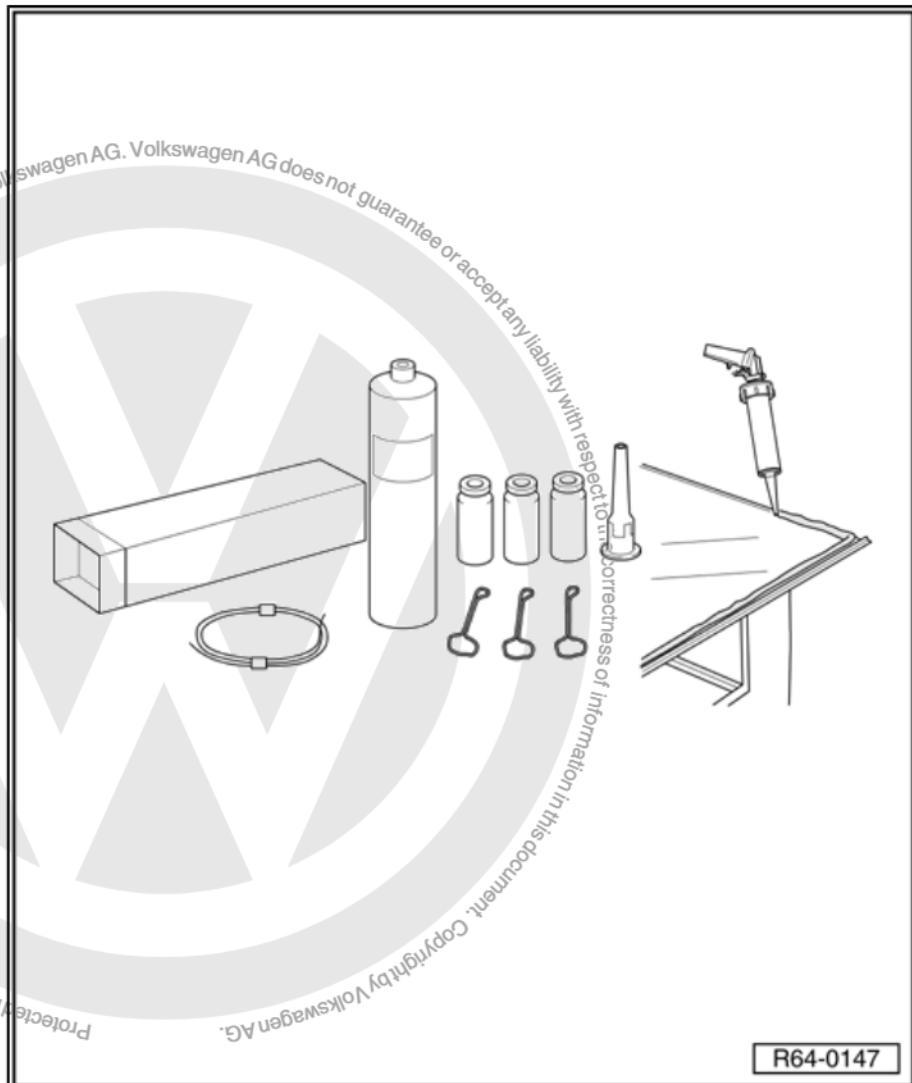
- All (except windows with packing)

- Product used

- Glass adhesion kit

Total drying time:

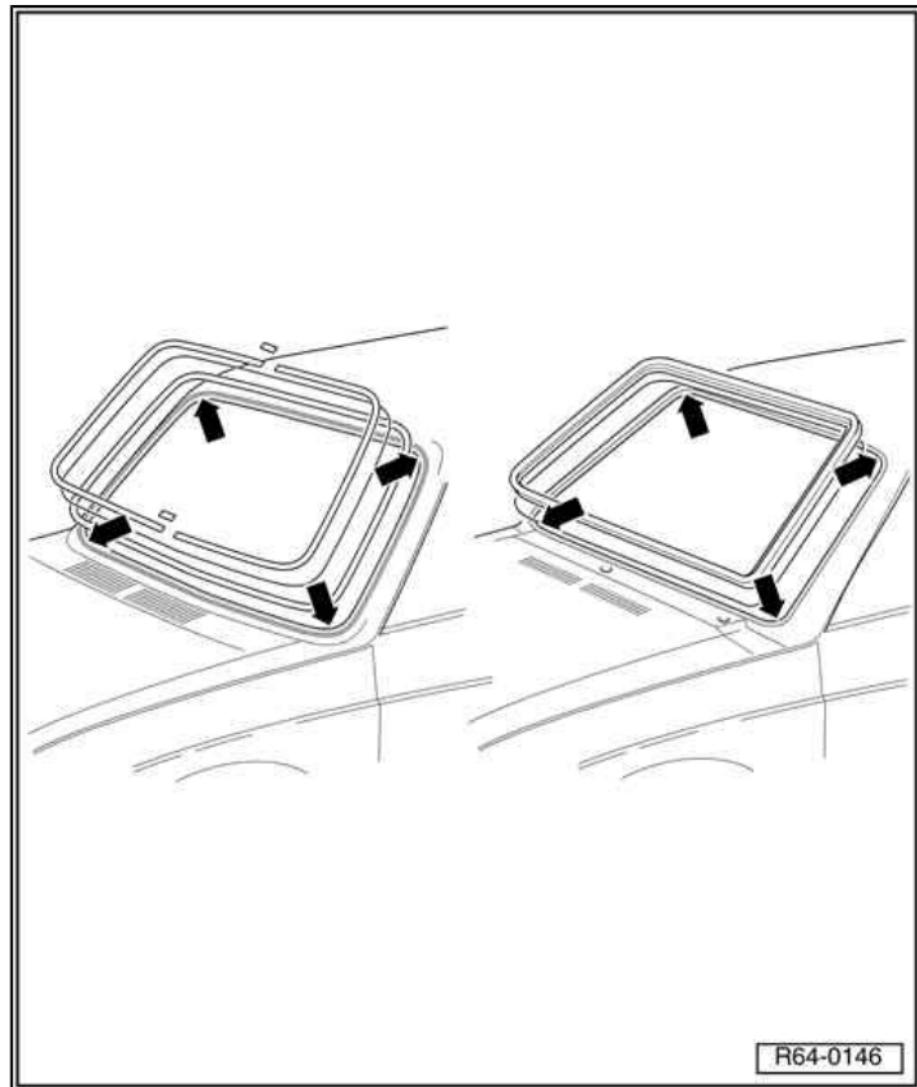
U-400 HVBN Adhesive : partial  
3 h , total 72 h / 5500SA Pri-  
mer : 15 min





## 28.7 Windscreen, side window glass and rear window glass - seal

- All (except glued windows)
- Product used
- Sealing compound  
⇒ [page 13](#)



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## 28.8 Glass - engrave chassis number

- All
- Product used
- Corrosive paste **⇒ page 21**

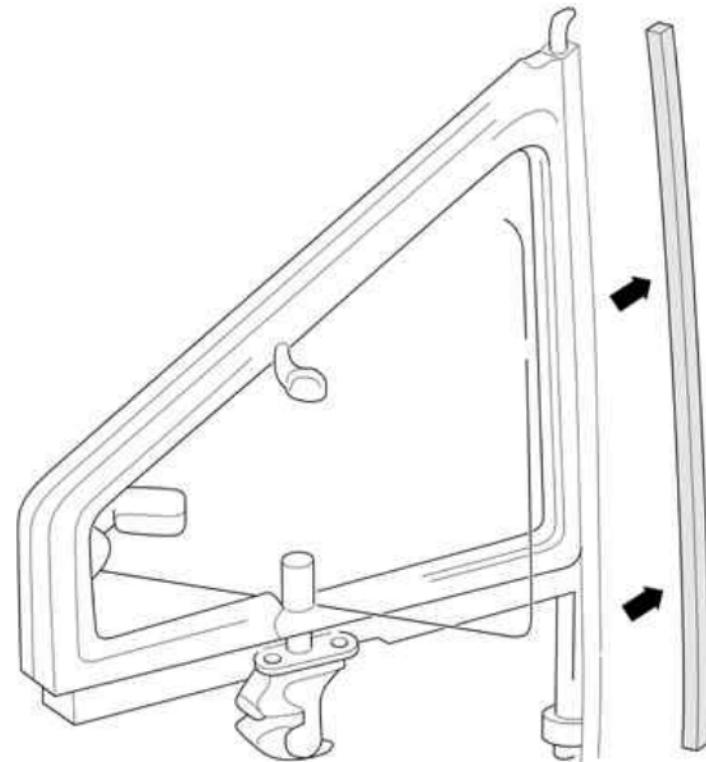
The destructible labels - VIS are only supplied exclusively to the governmental traffic-related bodies (Detrans / Ciretrans) or Security bodies (Police Station). On the Network Website, under "After Sales Service", "Services Information System" Memorandum no. 98/09 of 06/16/2009 can be found "Engraving the chassis number (VIS) on windows".





## 28.9 Front and rear door window guide groove - glue

- Kombi
- Product used
- Adhesive for finishing and lining [≥ page 6](#)



R64-0145

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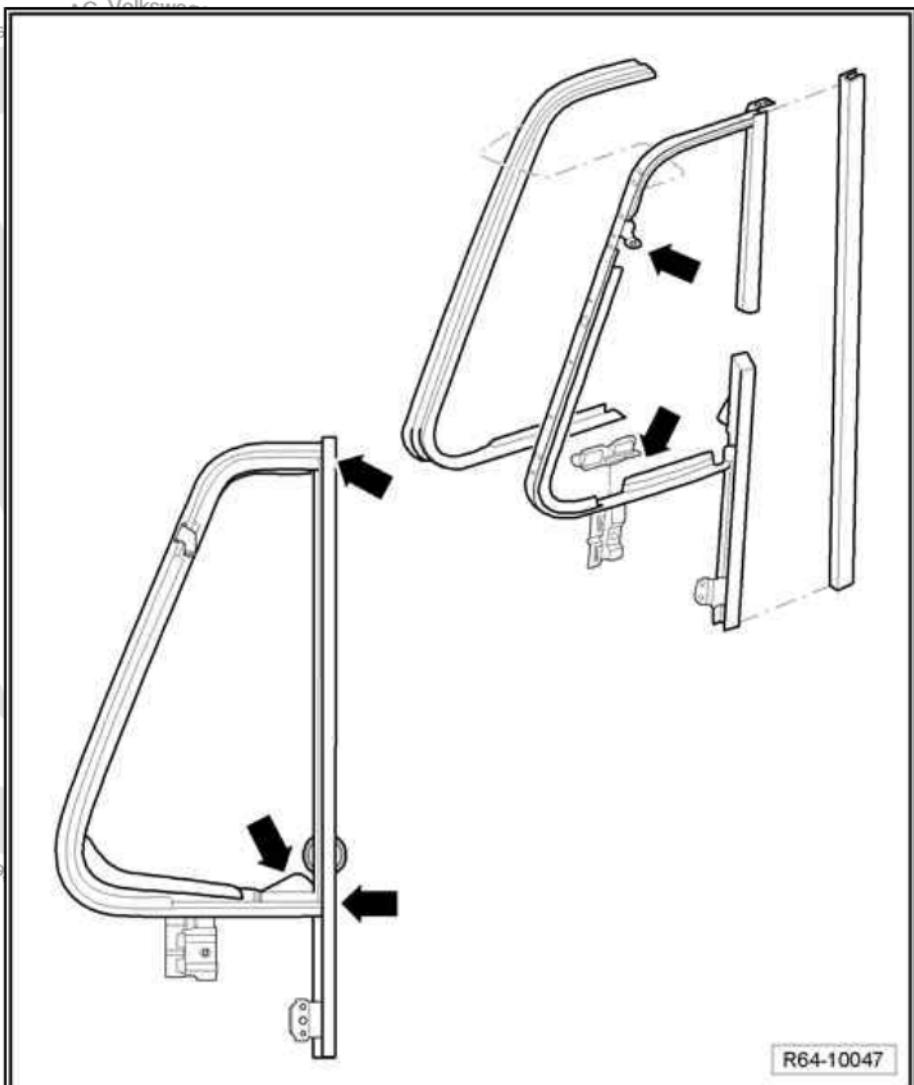
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## 28.10 Vent window - seal

- Kombi
- Product used
- Sealing compound  
⇒ page 13

-7X0 989 539-





## 29 Repair Group - 66 - External equipment



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

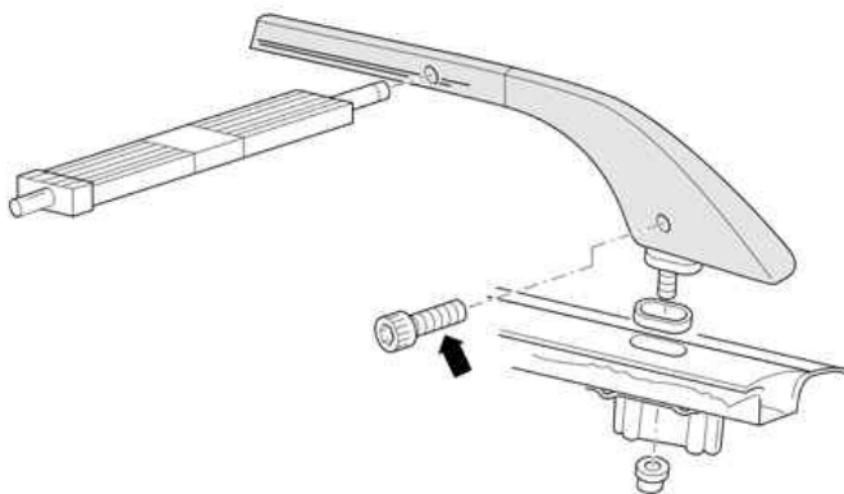
### 29.1 Roof rack fastening screws - lock

- Santana, Quantum and Parati

- Product used

- Low viscosity lock adhesive

[⇒ page 6](#)



R66-0022

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## 30 Repair Group - 68 - Internal equipment



### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

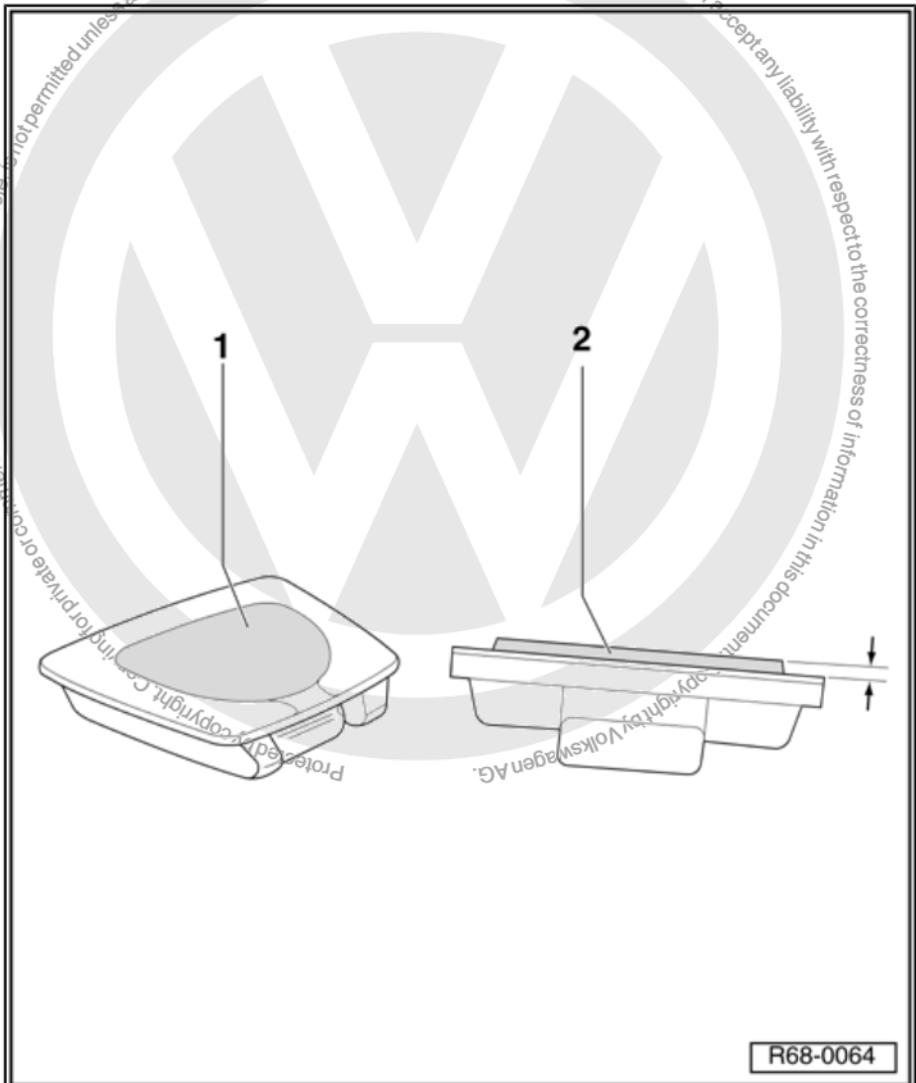
### 30.1 Interior rearview mirror support - fasten

- Santana
- Product used
- 2-component adhesive  
[⇒ page 7](#)

First mix the blue and red adhesives, in equal parts. Then, apply this mixture onto the interior rearview mirror support (detail A), leaving a small protrusion of adhesive (not more than 0.5 mm) to ensure contact with the windscreen. Surfaces must be free of oil residues.

1 - Adhesive

2 - Adhesive applied in embossing





## 31 Repair Group - 70 - Lining/insulation



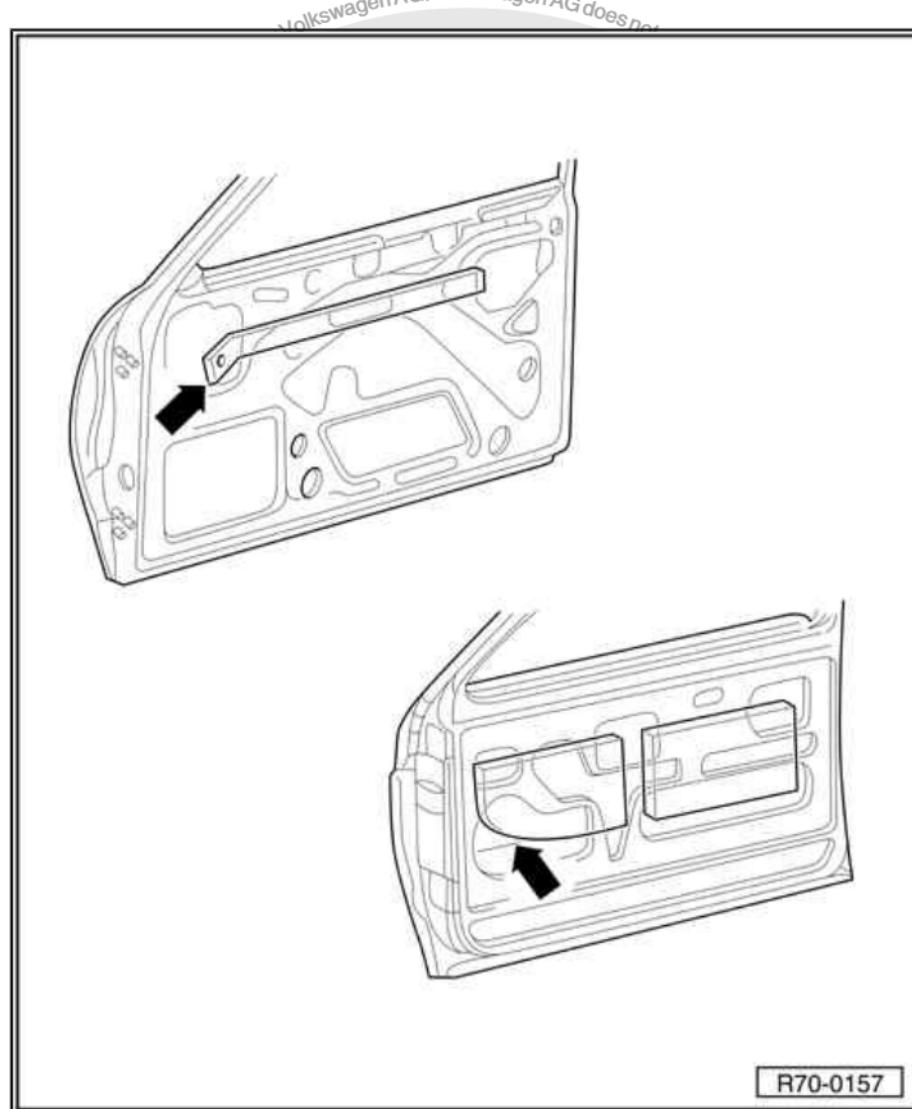
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 31.1 Door noise insulation - glue

- All
- Product used
- Adhesive for finishing and lining [⇒ page 6](#)

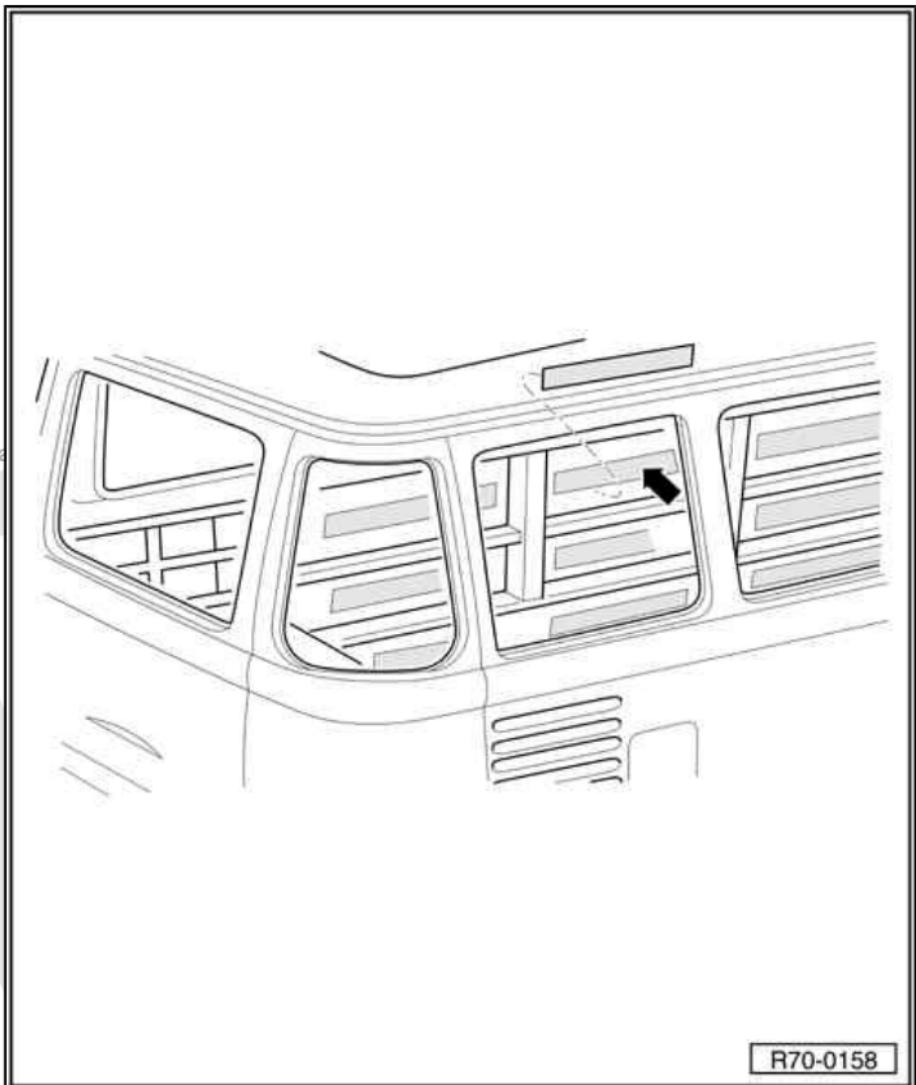


R70-0157



### 31.2 Noise insulation on rear side panel - glue

- All
- Product used
- Adhesive for finishing and lining **⇒ page 6**

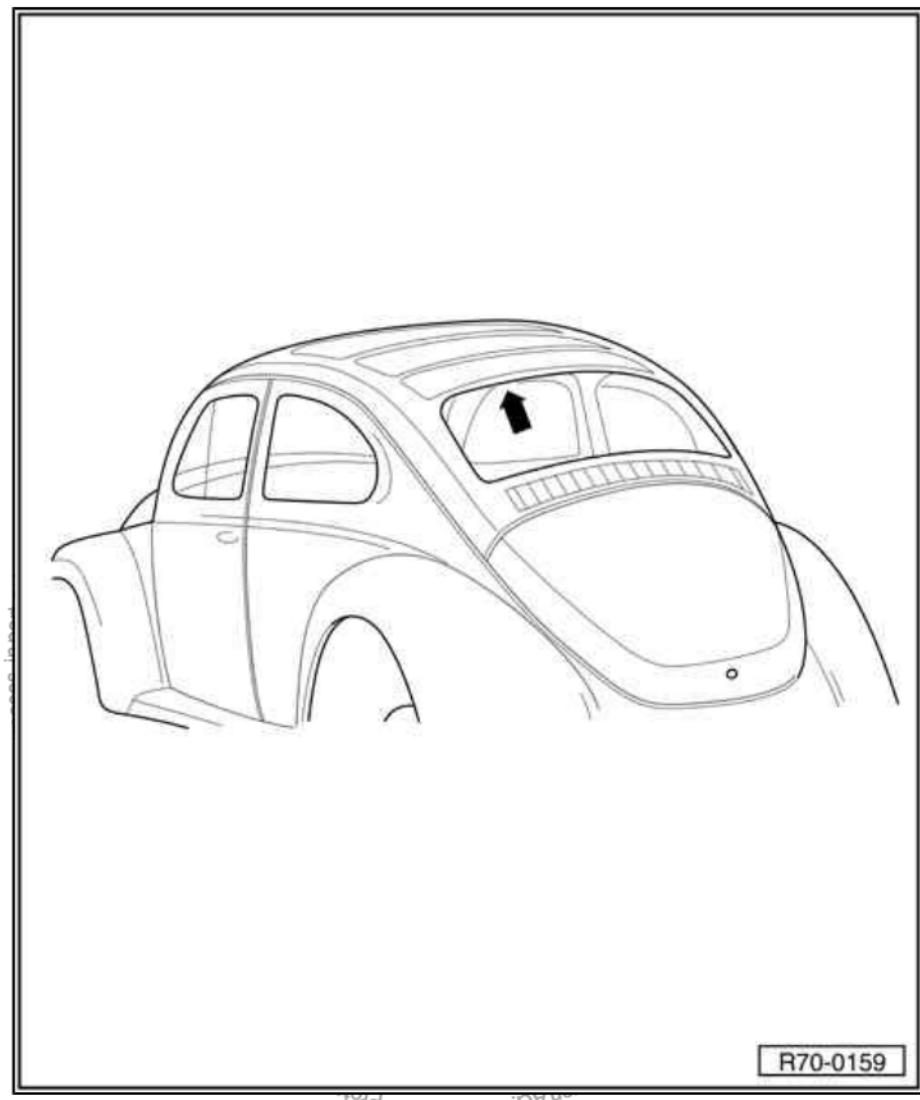


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### 31.3 Roof noise insulation - glue

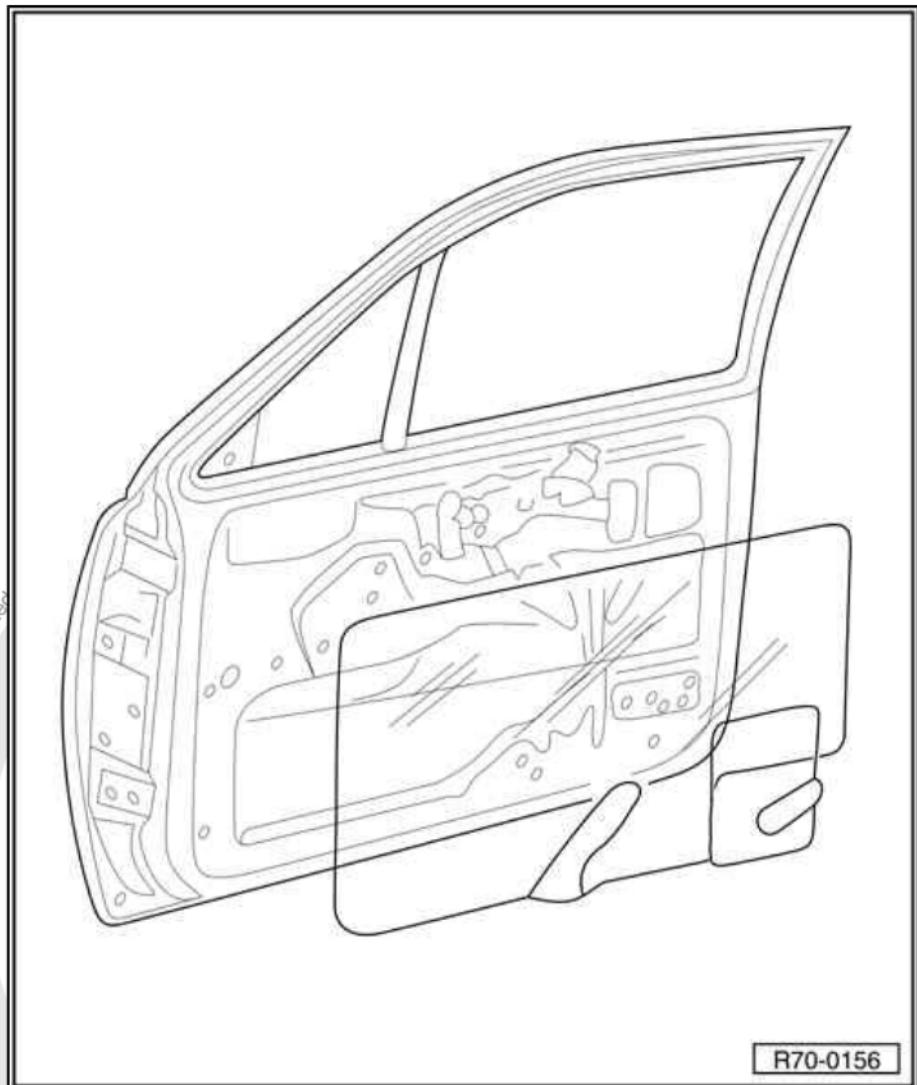
- All
- Product used
- Adhesive for finishing and lining [≥ page 6](#)





### 31.4 Door sealing membrane - glue

- All (except Golf and Polo)
- Product used
- Transferable adhesive tape  
⇒ page 8



R70-0156

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## 32 Repair Group - 72 - Seat framework



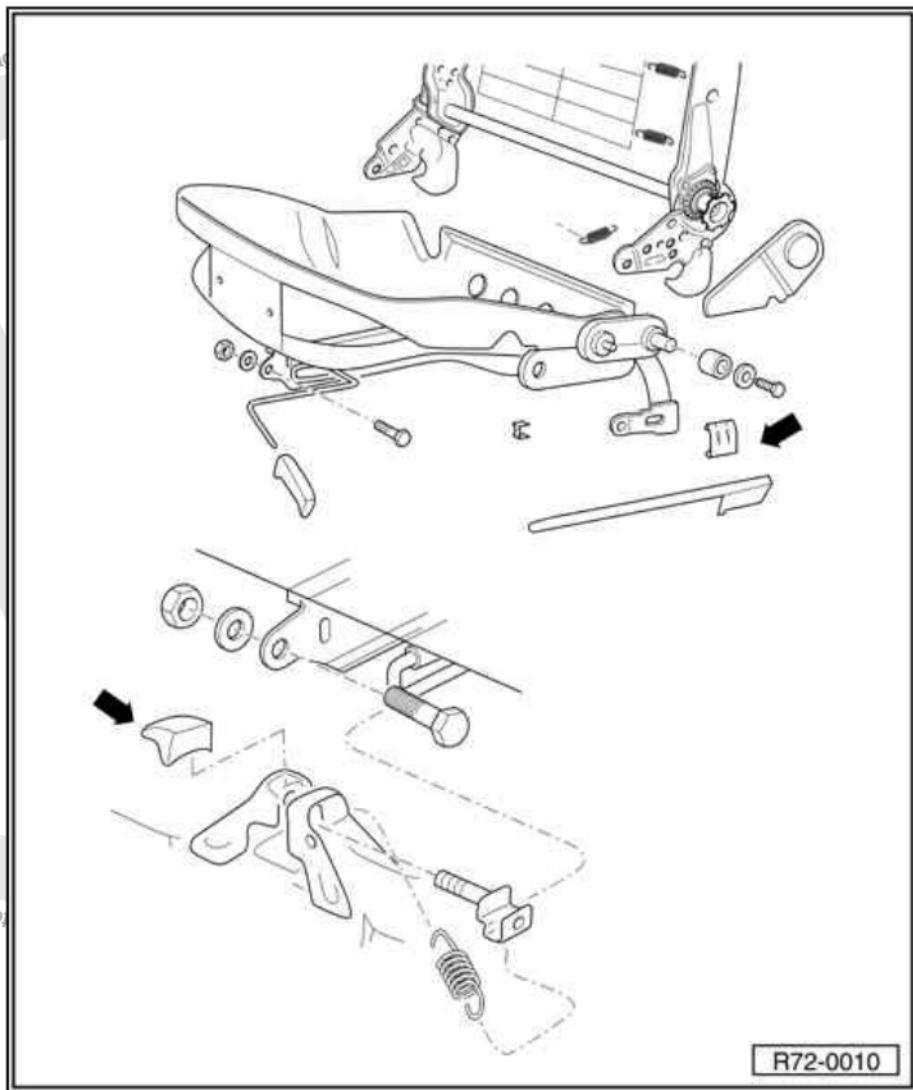
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 32.1 Front seat central sliding guide - lubricate

- Gol, Parati, Saveiro and Santana
- Product used
- Lubricating paste for constant velocity joints [page 13](#)





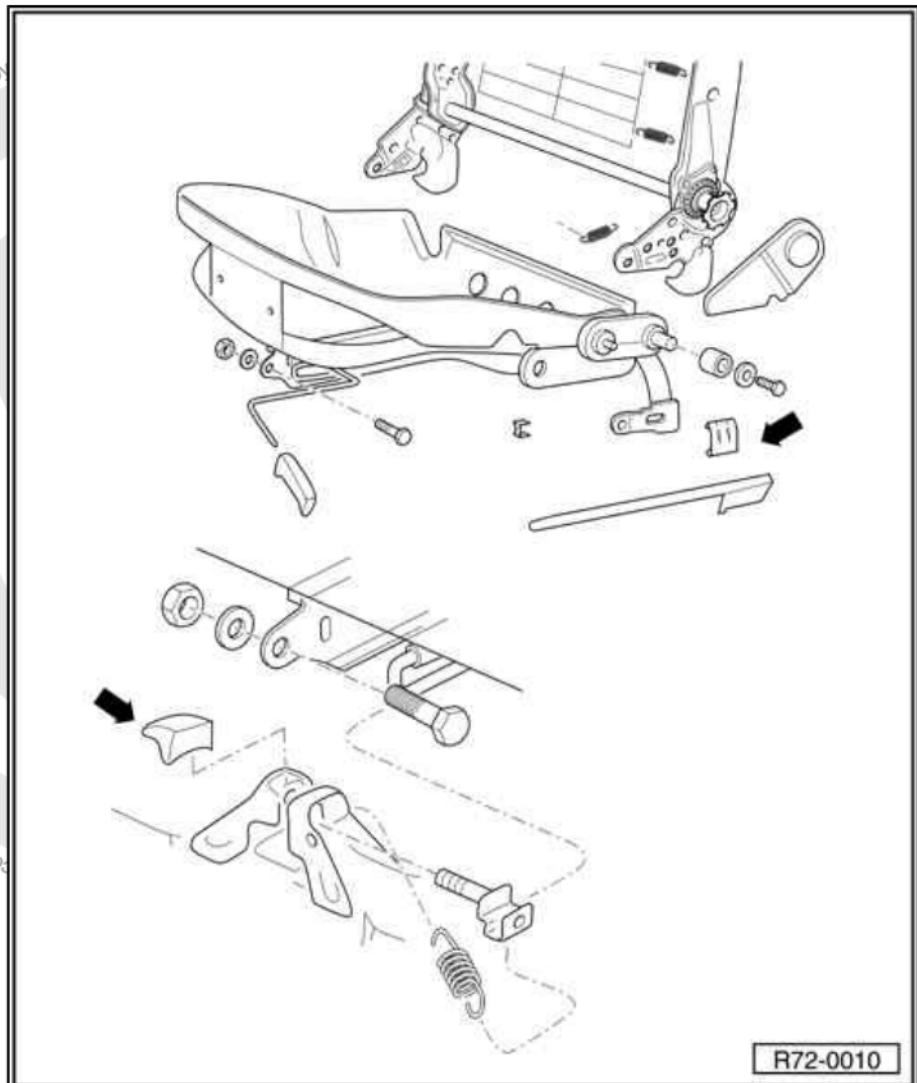
## 32.2 Front seat side sliding guide - lubricate

- Gol, Parati, Saveiro and Santana

- Product used

- Solid vaseline

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## 33 Repair Group - 87 - Air conditioning



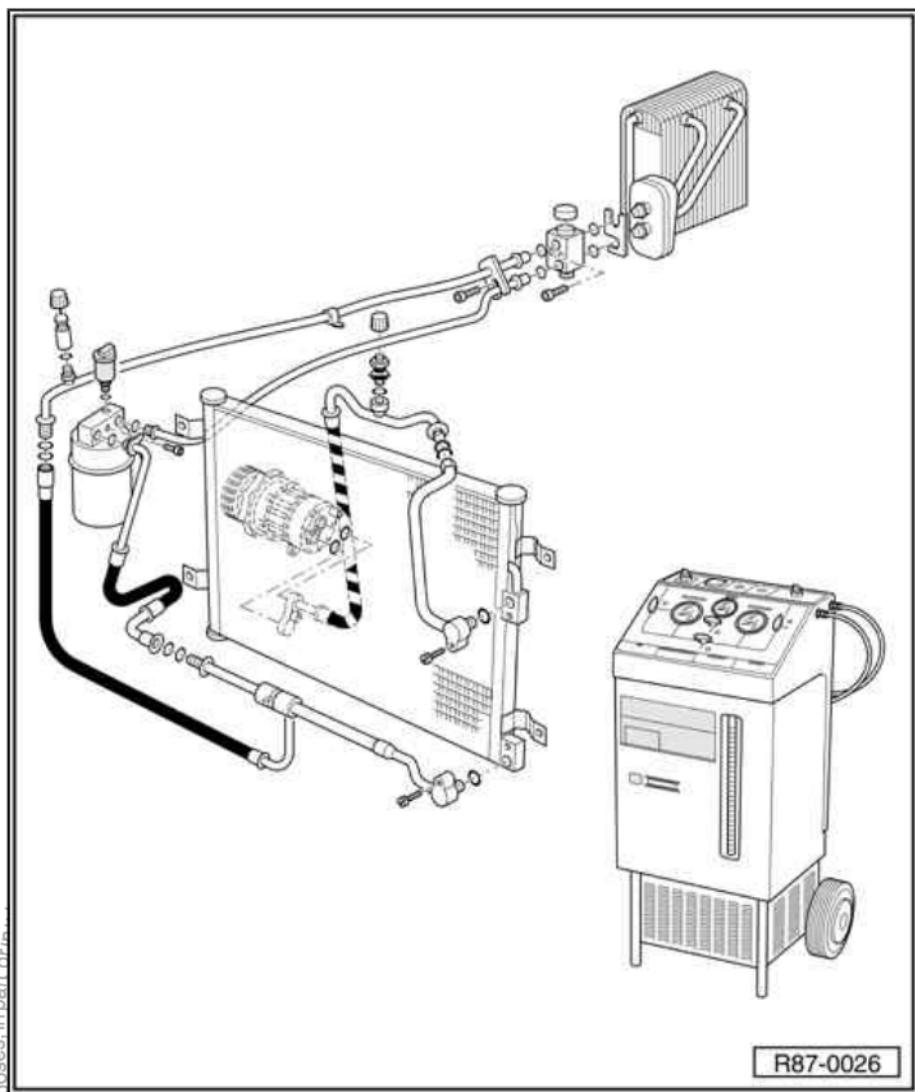
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 33.1 Air conditioning system - refill with gas

- All
- Product used
- Refrigerant gas [⇒ page 9](#)

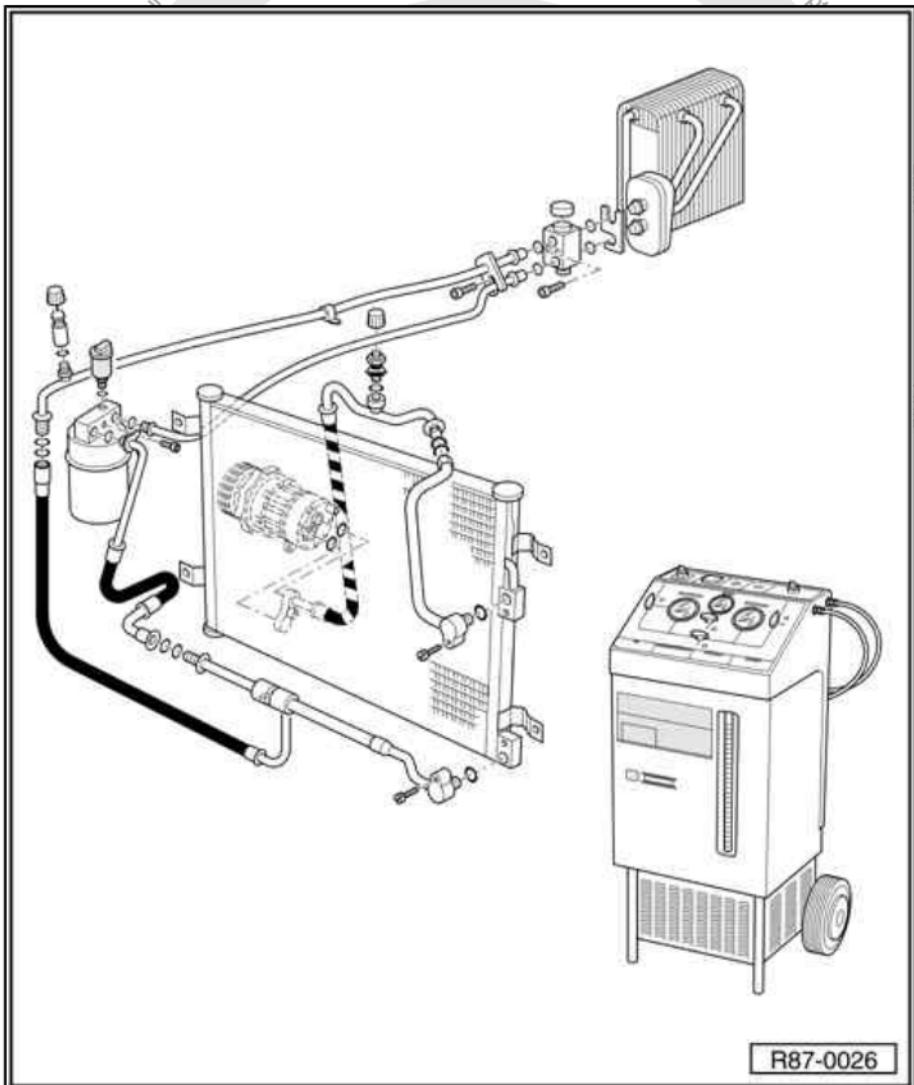


R87-0026



### 33.2 Air conditioning system - refill with oil

- All
- Product used
- Oil for the air conditioning compressor ⇒ page 19

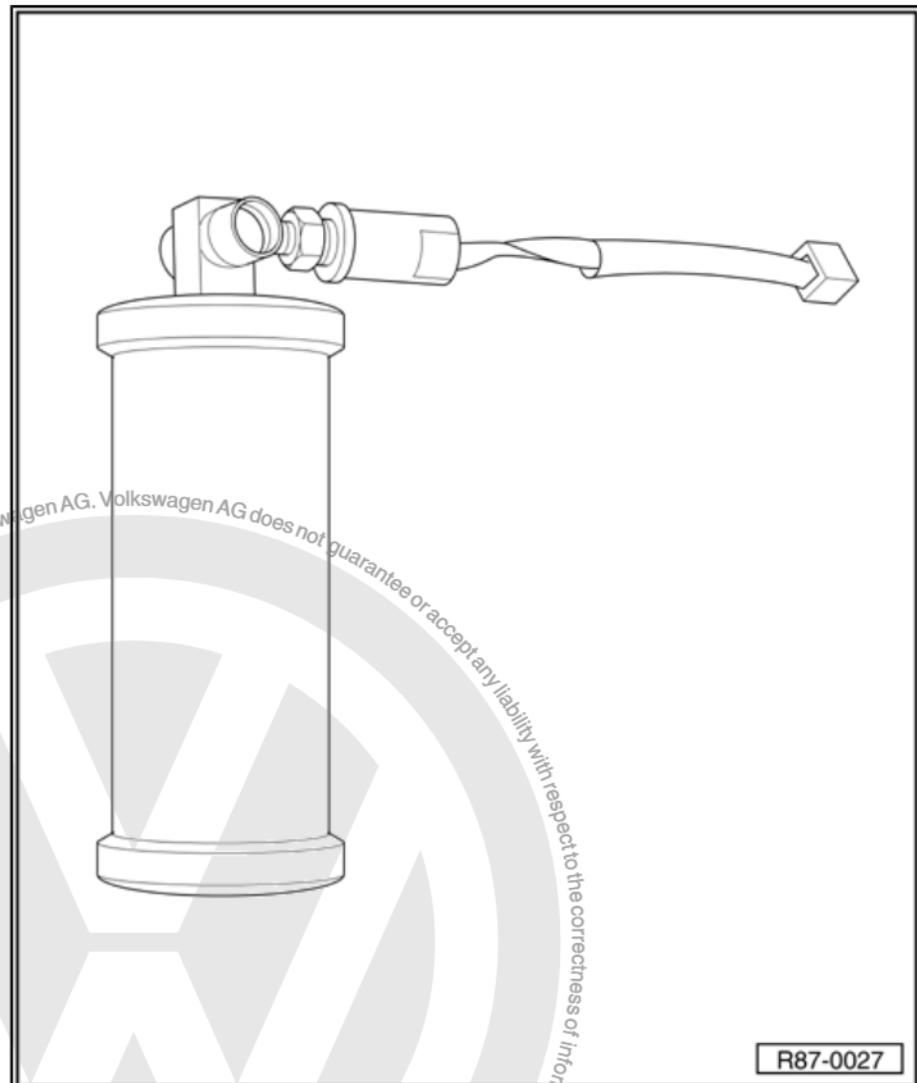


R87-0026



### 33.3 Air conditioning pressure switch - seal

- Gol, Parati, Saveiro and Santana
- Product used
- Medium torque locking adhesive [⇒ page 7](#)





## 34 Repair Group - 92 - Windscreen, rear window and headlight wiper and washer



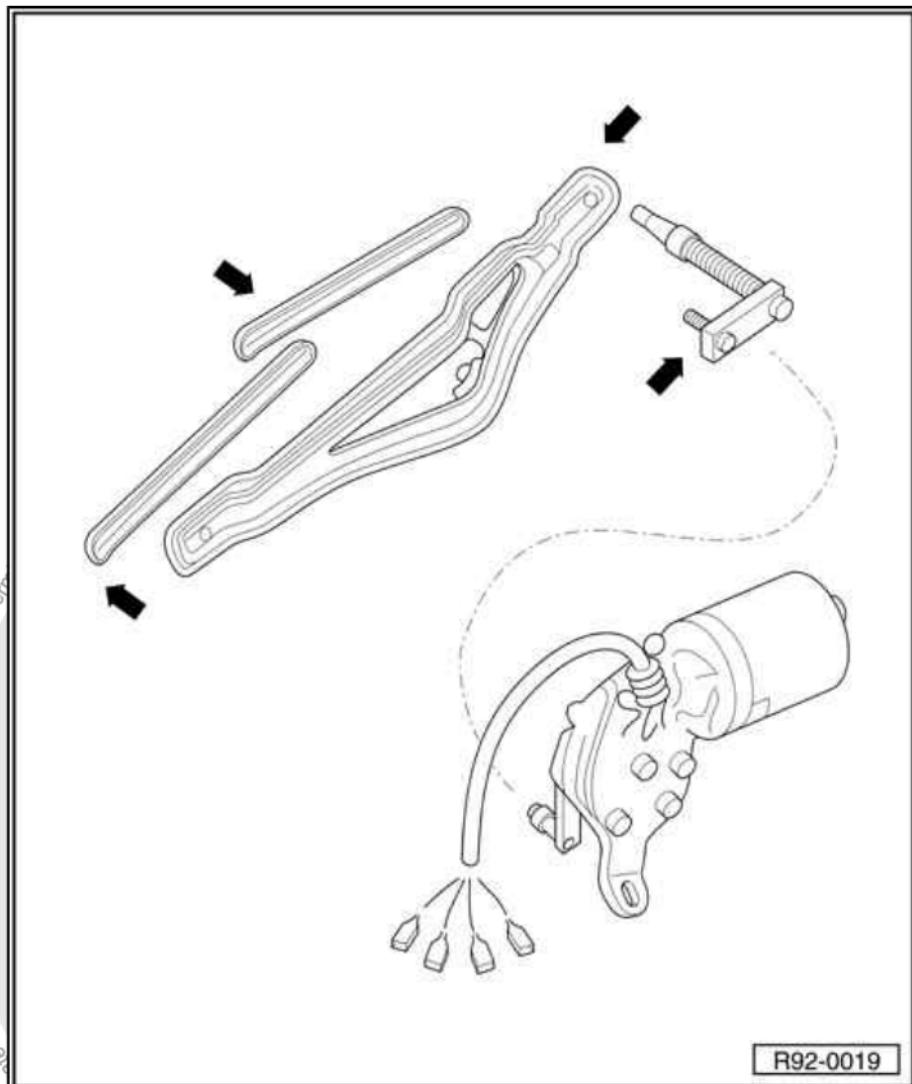
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 34.1 Windscreen wiper operating rod - lubricate

- Kombi
- Authorized product
- Multi-purpose grease  
[⇒ page 9](#)

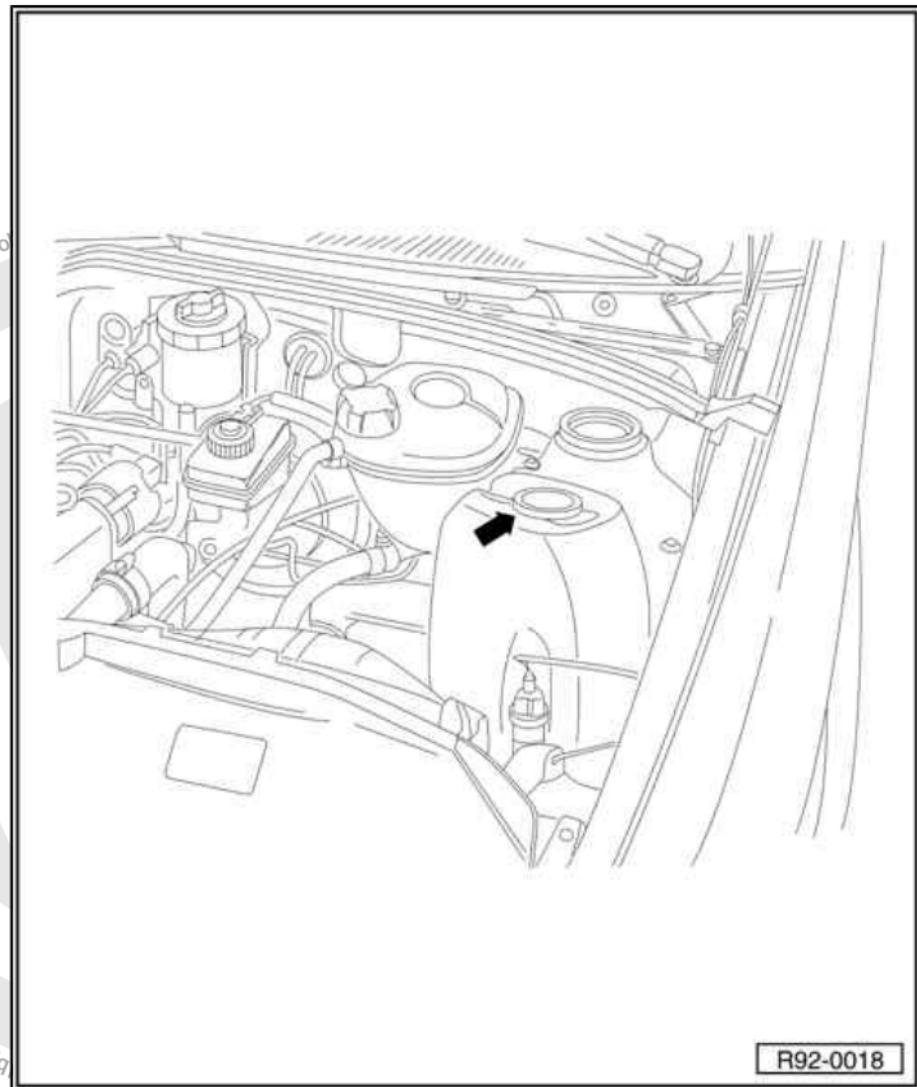




## 34.2 Windscreen/rear window washer water tank - fill

- All
- Authorized product
- Additive for the windscreen/  
rear window washer reservoir  
⇒ [page 7](#)

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## 35 Repair Group - 94 - Switches, lights, and external bulbs



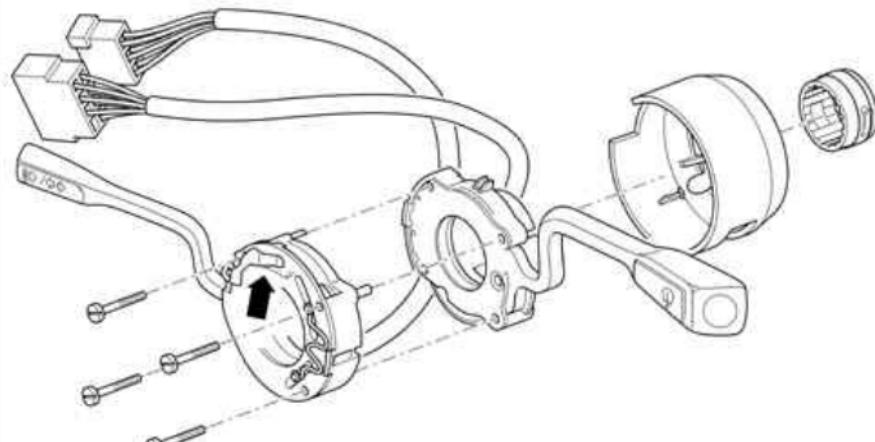
### WARNING

*Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.*

*Observe the information in Chapter "Work Instructions for Handling Chemicals".*

### 35.1 Contact blade for turn signal switch

- All
- Authorized product
- Grease for electrical contacts  
⇒ [page 11](#)



R94-0040



## 36 Repair Group - 97 - Cables and electrical harnesses



### WARNING

Check the regulations on the disposal of each product and packaging as per manufacturer's guidelines and current legislation at local, state and federal level.

Observe the information in Chapter "Work Instructions for Handling Chemicals".

### 36.1 Gaskets for the plastic covers that cover the electric harnesses - seal

All

Product used

Adhesive for plastic cap gaskets [⇒ page 7](#)

